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ALEXANDER VON HUMBOLDT.

(From the portrait by Schrader, in possession of Albert Havemeyer, Esq., New York.)

In 1970 the A.A.G. Committee on Archives and Association History was established. Since that time the Committee has arranged numerous sessions and workshops concerning the history of geographic thought, facilitated the establishment of an official archival repository, supported Maynard Weston Dow's "Geographers on Film" project, advised on the U.S. bio-bibliography contribution to *Geographers*, and otherwise sought to foster and encourage study of geographical thought. The first number of the *History of Geography Newsletter* was published in December 1981.

The purpose of the *Newsletter* is to provide an outlet for articles, summaries, reports of events, reviews or notices of literature et al. relating to the history of geographic thought. If you have something of this genre which you feel would be appropriately placed in this publication, please submit same to the editors. It is anticipated that this *Newsletter* will be published occasionally, but nevertheless not infrequently.

Klaus D. Gurgel joins with me in producing this number of the *Newsletter*. Our thanks to Clayton Gordon of the John Wiley Company for helping to arrange a revenue-producing advertisement on the end cover of this *Newsletter*. This helps to defray some of the costs associated with this enterprise.

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HISTORY OF GEOGRAPHY NEWSLETTER

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On Geography and the History of Geography

By R. J. Johnston
University of Sheffield, U.K.

There are two reasons for studying the history of the academic discipline of geography: to know what was done, by whom, and when; and to understand why certain approaches to human geography have dominated at particular times and places. The first of these provides informational depth, giving a sense of the discipline's achievements; it is very largely an exercise in archival cataloguing and chronological presentation. The second provides a contextual framework, allowing one to understand why geography was how it was and how it is, where. It is the more challenging of the reasons for studying disciplinary history - clearly dependent on the first - and is the focus of this essay.

A number of different ways of looking at the history of geography as an academic discipline have been promoted over the last century, and especially over the last forty years. These can be categorised as:

1) *The particularistic*, with a focus on individual scholars, their works, students and disciplines (see some of the essays in Blouet, 1981). This portrays the nature of a discipline as determined by a few dominant individuals - who may not be very productive scholars themselves, but are extremely influential on who gets various forms of research support and employment. The major format for the presentation of this material is biographic - with an increase in the number of autobiographies (Hudson, 1979; Buttner, 1983; Billinge, Gregory and Martin, 1983) but with emphasis on the works of dead scholars (e.g. Martin, 1968, 1973, 1980; Freeman, 1977ff; Blouet, 1981); the work of few living geographers has been assessed (Perry, 1968, 1979).

2) *The contextual*, with its focus on the external influences on determinants of the contents of the discipline. Contextual studies can vary from those which focus on the physical and/or socio-cultural en-

vironments in which scholars were socialised, through those which investigate the interaction between academic and society (particularly the "paymasters" within society - the state and the various private foundations and institutions that finance teaching and research), to those which present the nature of geography as directly determined by external controllers (see, for example, the chapters by Berdoulay, Capel, and Grano in Stoddart, 1981a).

3) *The linear progression*, which presents the prosecution of research, as a sequence of studies each of which extends the body of knowledge, in a cumulative rather than additive way, and provides a new set of questions to be asked. The clearest example of this is Kuhn's (1962) paradigm model, widely applied to geography (see Berry, 1978); alternative models have been presented by Popper (see Haines-Young and Fitch, 1980, for a discussion of critical rationalism in a geographical context), and by Lakatos (see Wheeler, 1982).

This categorisation is no more than the presentation of three ideal types. Many individual studies of aspects of the history of geography do not fit neatly into any one, but incorporate elements of two or more - thus a combination of 1) and 3), for example, may seek to demonstrate the role of a key individual or group in the promotion of a certain research frontier.

As ideal types, these three present very different perspectives on why a discipline has taken a particular shape. The first type - in its purest form - is very much an *anarchic* view; geography was, is and will be what individual geographers alone made it, and will make it. The other two, on the other hand - again in their pure forms - are *deterministic*: the one sees the content of the discipline as directed from outside, whereas the other sees it as inner-directed, with the

problems to be tackled being generated by the subject matter themselves rather than by the individual practitioners.

Undoubtedly, and not surprisingly, none of these approaches has achieved anything like consensus acceptance. The first has been criticised by Stoddart (1981b), for example, in his statement that his book is intended

to demonstrate that the history of geography is more than simply the chronological listing of the achievements of a few great scholars arrayed in national schools (p. 1).

Regarding aspects of the third type, Stoddart (1967) initially found Kuhn's paradigm concept of value, providing

inter-related networks of concepts on a sufficiently general level which serve to define, at least for a time, the nature of geographical goals and the conventional frameworks within which these are pursued (p. 511)

implying a consensus view within the discipline of what geography is and how it pursues its intellectual goals. More recently, however, Stoddart (1981c) has concluded that

the adoption of Kuhn's terminology, far from clarifying history, actually distorts it, largely by reducing the participants to caricature figures (p. 76).

(See also Bird, 1977, 1978; Johnston, 1978, 1979, 1981, 1983; Herbert and Johnston, 1978.)

Stoddart seeks to replace these two centres of attention in the historiography of geography with work that reflects the second type presented above, though without the deterministic overtones. Thus (Stoddart, 1981b)

both the ideas and the structure of the subject have developed *in response to* complex social, economic, ideological and intellectual stimuli (p. 1, emphasis added).

How such an approach might be formulated is demonstrated by a number of contributors to the book edited by Stoddart (1981a), in Buttimer's recent book, in the autobiographical essays in *Reflections on a Revolution* (Billinge, Gregory, and Martin, 1983), and in Berdoulay's (1981) study of the French school.

This essay extends the above arguments, favouring the contextual approach but focusing more on individual agency than is the case in some other works in that genre. It is argued, first, that approaches to the study of history of geography very much reflect the dominant orientation within geography at the time-and-place of any one study. Historians of geography are socialised as geographers, and so take to their historiographic enterprise the general viewpoints of

their discipline, as they know them. From this it is argued, secondly, that current developments within the philosophy of geography - in particular the structurationist perspective which occupies a fertile middle ground between the anarchic and deterministic positions have much to offer the historian of geography.

Debates Among Geographers, About Geography

— The social and human sciences have been characterised for centuries by debates concerning the nature of their prime object of study - the human actor. In the simplest possible form, these debates can be characterised as involving two polar positions - the logical positivist versus the idealist (or determinism versus the free will). Each of these implies a separate "model of man" with the "mere puppet" on the one hand and the "unconstrained free actor" on the other. Again, the many aspects of the debate preclude the use of such a simple typology, and several "models of man" have been identified within the geographical literature (Claval, 1982; van der Laan and Piersman, 1982; Harrison and Livingstone, 1982); from there it is possible to derive theories of society, of which Campbell (1981) identified seven.

There is no intention in the following paragraphs to explicate these models fully, nor to provide a detailed account of changes in the content of geography in recent decades. Rather a number of "debates" in Anglo-American geography are highlighted, to illustrate the nature of the contentious issues and to provide the backcloth for a re-examination of the contextual approach to the history of geography.

Environmental Determinism vs Possibilism — If we portray various approaches to geography along a continuum from complete determinism to full free will, then of the two elements in this first debate environmental determinism (especially in its crudest form) falls close to the determinism (left-hand) pole, whereas possibilism lies considerably to the right of centre. (See Thrift, 1983, for a development of this form of presentation.)

Environmental determinism failed not only because of the crudity of its hypothesis - that human action is determined by the physical environment - but also by the poverty of its methodology. That its statements lacked veracity not only brought disrepute on geographers but also stimulated its replacement by a philosophy that approached the other extreme - that man controlled the environment completely, rather than vice versa. The more tenable middle-ground position, ably demonstrated by Siegfried (1949) and

promoted by Spate (1957 - as probabilism), was largely ignored. Geography retreated to a relatively sterile, explicitly empiricist approach of demonstrating, by description, that places are different, although there was still a strong underlying current of environmental determinism - virtually all regional treatments began with descriptions of the "physical setting", into which framework the details of human occupation were set.

Out of this "debate" the synthesis achieved - within Anglo-American geography at least - was thus very much an idealist one, promoting the contemplation of the unique. Linked with this was an idealist view of the history of the discipline, which emphasized the dominant role of the leading scholar (with, however, some trace of environmental determinism: see Porter, 1978). In part this was apt, since the discipline was small and structured in a hierarchical manner. But no individual (just like no region) is an island.

Regionalism vs Spatial Science — The 1950s and 1960s saw a major debate - initially in North America - between the proponents of a new, scientific, nomothetic geography, using a respectable methodology, and the defenders of what was termed the "shabby amateurism" of the regional approach (Gould, 1979). The "new" was promoted not only because it was intellectually superior and could cope better with the discipline's subject matter (Chorley and Haggett, 1967) but also because it was relevant to current societal concerns, a relevance that is still promoted (e.g. Bennett, 1981) but which has been analysed by others in terms of its value to the powerful interests within society (Scott, 1982).

The arguments for spatial science sought a shift away from the right-ward leaning, idealist regional approach, and back to a left-wing, determinist position. In an approach characterized by some as "spatial determinism", man was presented as conforming - in the aggregate if not individually - to certain laws of behaviour which reflected the underlying economic, social and political organising concepts within society.

The spatial organisation of society was presented, according to this new view of geography, as human actors operating the laws of economics - the "dictates of the cash register" according to one view (Powell, 1980). Patterns on the ground were predictable. So too was change in those patterns - indeed theories of spatial diffusion and of the geography of economic development had a strong teleological ring to them.

These views were formulated in theoretical rather

than empirical terms, creating many problems in deciding what was and was not a successful test of any particular hypothesis (Guelke, 1971). Many of the fits between expectation and observation were poor - a situation which was frequently ascribed to a lack of sophistication in both theory and analytical methodology. Progress was promoted by modifications to the theory (introducing a behavioural component), and by methodological advance - from linear to curvilinear sequences, and thence to catastrophes and bifurcation (Wilson, 1981). The parts were brought together in an increasingly complex systems framework (Bennett and Chorley, 1978), which implied that everything is linked to everything else, both now and in the future; the whole of history is predictable, even if it cannot be explained (Gregory, 1980).

It is not surprising that Kuhn's model of scientific development became popular with geographers at that time, even though Kuhn himself denied its relevance to the social sciences. In part there was the attraction of the language - the notion of a scientific revolution appealed to those seeking to overthrow the "old order" in the geographical establishment (Harvey, 1973; Stoddart, 1981a). And in part there was the inbuilt concept of progress towards the goal of complete explanation, even though there may be a few catastrophic flips and route bifurcations on the way. Geography, like the subject matter it studies, was moving steadily - and predictably - forward.

From Spatial Science to Structuration, via . . . —

By the 1970s, spatial science was coming under attack from another right-ward movement towards the idealist position, with the growth of what became known as humanistic geography. This was presented as a reaction against the implicit determinism of spatial science and by its denigration of the role of human agency. The individual actor was to be returned to the centre of the geographical stage, as the thinking being who created mental pictures of the environment and acted accordingly (in some situations, habitually).

This revival of the idealist pole suggests that the history of geography should also move to the right, replacing the Kuhnian model by a renewed particularistic perspective. That this failed to take place to any degree reflects both the failure of the humanistic approach to usurp spatial science (except in certain areas of human geography, notably historical geography, in which a particularistic history of geography remains popular; Williams, 1983) and the growth of a further debating point, opposed to both.

So-called "radical geography" provided an alternative perspective from the determinist end of the continuum. It was increasingly based on Marxist economic and social theory, and presented not only an analytical framework for understanding the spatial organization of society but also a political framework for achieving change in the spatial organisation and, more importantly, in the structure of society itself.

Some interpretations of Marxist theory are very deterministic, and have been the subject of responses from the humanistic perspective (e.g. Duncan and Ley, 1982). Other interpretations come much closer to the centre of the continuum. They portray each mode of production as being characterized by certain imperatives and systems of relationships - in capitalism these include materialist accumulation as the dynamo of economic activity, which proceeds in cycles not as unbroken linear "progress", and class conflict as the arena within which competition for the spoils of that accumulation takes place. But the details of how the mode of production operates are not predictable. In capitalism, businesses must accumulate to survive, accumulation can only take place if both surplus value is created in the labour process and the products of labour are consumed, labour must be employed in order to reproduce itself, and so on. But there is no one way in which this complex series of inter-relationships evolves; what happens where depends on the interpretations of the situation by knowing actors, in their historical and spatial context.

This move to the centre-ground involves the concept known as *structuration*. At the base of the mode of production are the general driving forces - the real processes that are ongoing, though not unchanging. In the superstructure are the empirical results of those processes - results that may be experienced differentially by those involved. The results of the processes become part of the society's history, and they provide the filters through which the next set of empirical results emerges. Hence we get Marx's famous dictum that

Men make their own history, but they do not make it just as they please; they do not make it in circumstances chosen by themselves, but under circumstances directly found, given and transmitted from the past.

To geographers, structuration involves the creation, re-creation and modification of spatial structures. The circumstances within which men make their histories are not spatially uniform. They differ from place to place, as the result of interactions between human agents and their physical and socio-

cultural environments. These differences form regional mosaics. They may begin with small variations from place to place - in the nature of land tenure, perhaps (see Massey, 1983) - but as individuals are socialised into these slightly different environmental situations the inter-regional differences may grow. In each resulting region, the same real processes are operating, but the actualisation filters ensure different empirical outcomes, which feed back to the future actualisations - if not to the processes themselves.

According to this approach, the geography of the world - at all spatial scales - reflects the differing interpretations of human agents, locally socialised in the context of a socio-cultural structure in a particular physical environment and of how the dynamo of the mode of production should be fueled. Regional variations are not the result of deterministic processes alone - as suggested in the environmental determinism and spatial science approaches; nor do they result from unconstrained human actions - as implied in the possibilist and humanistic geography positions. They are the consequence of general processes, locally evaluated and continually re-evaluated.

A Structurationist Perspective on the History of Geography

It would be premature to suggest that the structurationist perspective represents a stable focus for geographical enquiry in the future. It is, however, not only a currently popular perspective within the discipline itself but also a valuable potential framework within which the contextual approach to the history of geography can be set.

The core of the perspective is that the content of a discipline at any one time and place reflects the response of the individuals involved to external circumstances and influences, within the context of their intellectual socialisation. The external circumstances and influences may provide very severe constraints on what is acceptable practice within the discipline and what is not - as in certain Eastern European countries at the present time. Those influences may be less direct, but nonetheless fairly effective - as in some countries at present where cuts in expenditure and academic research are being focused on "less relevant" disciplines, and where the employment prospects for graduates suggest the need for courses more clearly tailored to "saleable" skills. Indeed, it could be argued that it is only in periods of both economic prosperity and political stability (in any country), when investment in higher education and research is both high and relatively unconstrained,

that the fetters on human agency in directing the course of a discipline's development are weakest. In periods of crisis, a discipline not closely associated with public policies linked to attempts to resolve that crisis may generate internal debate concerning its own intellectual viability, but may lack the resources to co-opt the participants within its disciplinary establishment (Johnston, 1983).

Apart from those situations when the external influences (usually the state) are extremely powerful, this perspective does not have any predictive power. It may suggest tendencies - likely courses of direction - but no more, because it is fundamental to the perspective that the details of a discipline's history are created by independent agents. An examination of, say, American and British geography in the 1980s will indicate major differences in response to economic crisis and stagnation in educational expenditures, differences which result from geographers' responses to those crises rather than from imposed state policies.

On the broader scale, an analysis of geography in a variety of countries at the present time will indicate the myopia of those of us who have concentrated for far too long on the British and North American experience only (Johnston and Claval, 1984). To take just one example. In North America, the minority of geographers involved in foreign-area detailed field research is now small (Mikesell, 1973); it is probably even smaller in Britain. But in Germany, there is a very strong tradition of such work. Most candidates for a higher doctorate work on a foreign topic, and the German research foundations spend more in grants for foreign-based than for home-based research.

weight given to overseas research may not be permanent, for geographers themselves may see the need to change the balance in any particular country. That it currently exists illustrates the relevance of the structurationist perspective. That it may change is illustrated by another example - the relative importance of human and physical geography. In the United States, for several decades physical geography provided but a factual backcloth to work in human geography, with virtually no research by academic geographers in, for example, geomorphology and climatology. In Britain, on the other hand, the two *research* fields of human and physical geography were not separated institutionally (as they were in the Netherlands); one consequence was that during the "quantitative revolution" there was probably much more cross-fertilization between environmental and social scientists in Britain than in the United States -

though the two research fields have never been integrated (nor are they likely to be). Today, research in physical geography is being encouraged in many U.S. university departments of geography, not necessarily on intellectual grounds related to the "unity of geography" but rather, it seems because certain aspects of physical geography are seen as relevant, able to attract both research funds and students.

Given the important role of human agency in the creation and maintenance of academic traditions, whether in a country as a whole or in an individual university, questions arise about the validity of Stodard's criticism, quoted above, of histories of geography that focus on the individual. Again, the myopia, in space and time, of students of Anglo-American geography is apparent.

In many countries today, academic geography comprises a small body of workers. Indeed, introduction of the discipline to the country's universities is in many cases recent and a research tradition has only just been established. The nature of that nascent tradition reflects very much on the individuals establishing it - on their academic background and intellectual linkages (their time-space traverses, in Pred's, 1979, terms). Thus the strong links between Iberian and French geographers very strongly influenced the nature of geography in both Spain and Portugal until recently, whereas personal links influenced where graduate students went to in France, and what personnel were appointed.

The ability of powerful individuals to control what is done within a discipline also varies from country to country: in part it is a function of the size of the geographical establishment, but not entirely so. American universities are now "democratised", and although individuals may develop cores of co-workers around them, out of respect for their ideas, there are no dominant professors who can dictate what is and is not acceptable as geography. Britain is moving in the same direction, with the age of the "king-maker" now over. The result may seem like anarchy, shifting communities of workers in certain areas with no centralised control.

Elsewhere, the situation is very different, and there are much stricter hierarchies of control - especially in individual university departments. These may be liberal and benevolent, prepared to encourage promising new lines and to allocate resources accordingly. But they may be conservative, even repressive, concerned to maintain a perceived "purity" of the discipline against alien developments - whether quantitative or Marxist.

A broader search than is usually undertaken by Anglo-American geographers shows that in a sense our collective geographical ignorance is hampering our development of a proper perspective on our discipline's history. Anglo-American quantitative geography colonised many countries in the 1960s and 1970s. But others resisted - were even unaware: it is perhaps ironic that it gained more support in Eastern than Western European countries, and those which were colonised now somewhat resent it, and seek to develop their own traditions (Powell, 1980).

Conclusions - or Foreword

Geography is the study of the earth's surface, which is immensely varied in both its physical environments and its cultural assemblages. In studying this surface during the present century, especially the cultural assemblages, Anglo-American geographers first described them in an empiricist framework, then sought to explain them in a determinist model; there was then a return to the empiricist stance, followed by the introduction of a new determinism. Debate continued, which at its fundamental level was concerned with the relative importance of general controls (whether physical or social) and individual agency. A sensible middle-ground seemed to be out of reach. Today, the structurationist perspective offers a sensible middle ground, combining the

immanent forces of the mode of production with the configurational characteristics of the local environment. It promotes the study of "regional" differences (Gregory, 1978), but argues strongly that these must be interpreted as local variants, historically produced and reproduced, of general processes.

The thesis of this essay is that this perspective on the subject matter of geography should also be applied when geography itself is the subject matter. The Kuhnian framework adopted in the 1970s sterilized our understanding of ourselves; a return to the particularistic perspective will not be beneficial. The awakening re-interest of our subject in spatial variations - all the world is not like Cedar Rapids and Chicago, let alone Christaller and von Thünen - is leading to the exploration of philosophies of social science that can inform our understanding of the regional geographies of geography itself.

Note on a Source

Some of the ideas in this essay - admittedly a first draft of a first draft of a cohesive argument - derive from editing a book with Paul Claval on international variations in the history of geography since 1945. It was Paul Claval who pointed out the myopia of my Anglo-American viewpoint and who, by introducing me to the work of the other 'national schools', pointed me in the directions indicated by this essay.

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Geographers on Film: The First Interview — Carl O. Sauer Interviewed by Preston E. James

By Maynard Weston Dow
Plymouth State College, New Hampshire

Editor's Note: *The following is a transcription of the first film interview of a remarkable series produced by M.W. Dow. This series has been duplicated and is on deposit with the Association of American Geographers archival collection in the American Philosophical Society.*

M.W. Dow is now in the process of transcribing each of these interviews which will also be placed on deposit with the Association archives. This interview was accomplished at Berkeley on August 24, 1970, on the occasion of the 66th Annual Meeting of the Association of American Geographers.

JAMES: This is Professor Carl Sauer who is retired as Professor of Geography at the University of California at Berkeley and is one of the great figures in geography during the present century. He started in his work at the University of Chicago way back in the period before World War I. And you were a graduate student at Chicago when?

SAUER: Well, I was a graduate student in Chicago beginning in 1909 and I had been at Northwestern the year before. I was raised in a good Methodist family and turning me loose into the bad world was somewhat of a jolt, so they sent me to Northwestern.

JAMES: You know I had not heard this about you before, Carl.

SAUER: You had not? You see, in this little Missouri town and college where I grew up there was a lot of interesting country around there. It was geographically very varied to my good luck, from good prairie country to rather wild Ozark canyons

(you call them in the west) and I got interested in physical geography and I read. That little college had all the publications of the Geological Survey and some of the state surveys. I read these old books that were done in the 19th century about how Powell, Wheeler, etc., went out and saw the country and wrote about it and I thought this was great stuff. So when I left Missouri I went to Northwestern expecting to be a geologist and I got into a good geology department; U.S. Grant II, was the head.

It was petrography. I worked at petrography for a year and I learned that you did not look at the country or the beds of the rock, you looked in thin sections. They were interesting, they made very interesting patterns when you turned the stage. I knew well before the year was advanced that if that was geology that it was not my dish. Northwestern had a couple of instructors up from Chicago (while they were doing their Ph.D.) and one of them was a chap by the name of Decker; he later became State Geologist of Oklahoma. He said: "You are in the wrong place here, I think you should go down and see Professor Salisbury at Chicago. This ought to be the place where you would work and you are probably going to become a geographer."

So I went down and Salisbury (probably the forgotten great of geography in this country) didn't quite throw me out, but he gave me a rough going over and then he wrote me a letter and offered me a fellowship there. Fellowships in those days meant that you got \$320.00, you paid \$120.00 back in tuition and then you did any sort of work, from tending the library to running quiz sections, that they asked you to do. That's how I got to Chicago. I found it was the right

place, because Salisbury had started the first academic Department of Geography that was bilateral or multilateral. It was the right place to go to and the right time to go.

JAMES: Salisbury was really quite famous for the seminar that he had. He used to get graduate students and undergraduates and by questioning and discussing in an informal manner in a seminar, he would draw out their very best efforts.

SAUER: Informal! He would beat the "bejabbers" out of them! That was my roughest experience I ever had. He stuck me into that class, a famous year class, that every graduate student in geology and geography took. I certainly knew less than anybody in that class; this is not even arguable. Well, the first day in that class he started off looking at his cards and picked out Sauer over here, Simpson over there. He gave us the works for a whole hour. This thing went on with almost no letup for a month and the class met five days a week.

JAMES: He asked you questions and things like that?

SAUER: Asking us questions. I was the cornered rat, there was not anything to do excepting finally to bite back. I would have gone home if I had not been ashamed to go. It was dreadful.

JAMES: But, now he did a very different kind of a job than William Morris Davis. Davis was really a master lecturer.

SAUER: I never heard Salisbury talk for more than 5 minutes.

JAMES: Yes, that is it!

SAUER: He used the Socratic method in a marvelous way. Well, then one morning he came in and I thought, oh Lord, here we go again. He looked at me and grinned; a great big smile over a face that hardly ever smiled. He left me alone for the rest of my time there.

JAMES: Well, but he made you feel you had performed more than you knew that you could perform, at least, that has been the experience of some other people who worked with him.

SAUER: Yes. Well a nice quality about Salisbury was

that he never went for "yes men." You had to have a pretty good disagreement with Salisbury before he was interested. I had it. I did not know it. I had not wanted it.

JAMES: That was a great formative period in American geography, because out of that seminar came the largest number of people who staffed the new departments of geography being set up in those days; they came out of Chicago. Not very many people came from Davis to do this.

SAUER: You see, Davis was the physiographer, the physical geographer, and only those who wanted to go for what later became known as geomorphology were likely to go to Harvard. Also, those who were not scared of Harvard. Most of us midwestern boys were.

JAMES: This is very interesting you know, some of these ideas about the background of geography are of fundamental importance in understanding what happened since.

Now, Carl wants to say some things about his experience with Salisbury in connection with field study. Field study was one of the things that was emphasized at that time.

SAUER: In those days of rough professors and respectful students, Salisbury told me at the end of the first year: "You are not going home this summer, you are going to go into the Illinois Valley and make a field study of the upper Illinois Valley for the Illinois Geological Survey as to what that country is like." I said: "Yes Sir," and then I said: "What shall I be looking at?" He gave me one of his famous stares and said: "That is not my business, that is your business. At the end of the summer I may find out whether you can look at something."

He came down several times during the summer; those were days when you either walked or you had a buggy. I took him out in the buggy and showed him various things I had been looking at and thinking about and he would ask questions. He never made any comment as to whether I was on the right track or he thought I was on the wrong track. He just asked questions, shook hands, and disappeared. At the end of the summer he said: "Now you sit down and write this thing." I did and here is another quality I attribute to the old man. When I got the thing done (it was a rather long job) although he was one of the busiest men in the university (he was not only Dean

of the Graduate School but of two departments he was head) he took days, perhaps weeks in reading what I wrote and commenting on it for clarity and for simplicity. So I think if I did learn to write (I am not sure I ever really learned to write) but if I did, it was this old gentleman taking a lot of time out of his very very busy life to help me put this job in order. So he is a grand memory of mine.

JAMES: Carl, I want to ask you some questions about another old geographer of that period. Wellington Jones was a close friend of yours at Chicago and Wellington had been to Argentina in 1912 to work with Bailey Willis on some land classification work. I think he had the idea — I believe it was the first time that this had been presented — that not only should you make detailed maps of a certain degree of generalization for the physical character of the land, but also at the same scale, studies of land utilization on the same kind of map.

SAUER: He did that alright.

JAMES: And you see before that there had been a tendency to make a study of geomorphology and then make some remarks about the human response. Now, is not Wellington Jones one of the first people who had this idea? You and he wrote a paper in 1915 on the way to approach the geography of the small agricultural area. Remember that paper?

SAUER: I remember, but I have not looked at it in two generations. Yes, one of the good qualities about Wellington Jones was that he was always wanting to see for himself. He came alive anytime that there was a chance to go out in the field and look at something. I do not know what happened to him (this was after the time I had connections at Chicago) but he suffered in classes, working up an hour's lecture became a great burden to him. Then he would go off into the fields and the lakes of Michigan or into the Rockies and he would be fine. I guess he was just the kind of wild creature that did not take to confinement.

JAMES: I think this is a very good remark, because he was excellent in the field. Even in his later years (after he retired) he still could come back and take people on a field trip and make it exciting.

SAUER: Yes, but he never went off on the deep end on this matter of converting agriculture into figures.

JAMES: Yes that is right. I remember his remark

about models, theoretical models: that a model tells you how a thing would work, if it does not work the way it does. He has a lot of little quips like this that are credited to him.

You came out here, though to California after you had been at Michigan where you had worked a little bit in land classification and had started the Michigan Land Economic Survey. But you came out here to California and you went into quite a different kind of career. You became very much interested in interdisciplinary work, across the border of anthropology and history. You want to tell us a little bit about that period?

SAUER: Well, I left Michigan not because things were not going well there for me. In fact, when I had resigned at Michigan and taken the place out here the Dean of the University (who was Efftingger at that time) came around to me and he said: "You ungrateful pup. Here we have raised you until you are something for us and you leave us. Why did not you give us a chance?" I said: "I was afraid that if I told you that I wanted to leave, you would talk me out of it." So there was no break there, excepting that I wanted to learn about things that were more different from what I had seen, thought about and read about in the Middle West. You see, in those days, geographers did not take off for the ends of the earth for months and months at a time. So I came out here. I did not come because of the attractions of the California climate or anything of that sort. I came, I think, to get a new breather. When I landed out here I found that there were so many people here, who knew so much more about the things that I needed to know something about: whether it was agriculture, or soils, or trees, or physical geography, or climate, that it would take me years and years to start in at the level of knowledge that there was here. So the first Christmas (we had Christmas vacations of more than a month at that time) I said to the lads who were out here with me, let us go across the border into Mexico where hardly anything is known about anything. This was sort of a primitive way of going exploring. So we went down to lower California (Thorndwaite, Horace Byers, Sam Dicken, Peveril Meigs) and we looked at the country. We had, at least, partly the feeling that we were the first people looking who had some sort of academic background to look. I went into Mexico for discovery. Now it is just that simple.

JAMES: Your work in Mexico, of course, has been tremendous and very productive; it certainly opened up an entirely new field for American geography.

SAUER: When we started going down into Mexico we could look at things that had not been well looked at and described before. The original idea was to learn about the Spanish way of life against our more or less Anglo-Saxon way of life. To my surprise, I found that I could not get very far on Spanish towns, Spanish missions, Spanish agriculture without knowing about the Indians, whom they were working with. I had learned something about Indians; I had no intention of getting interested in Indians, but the whole structure rested on the Indian base. So then I began to learn something about the Indian cultures and the Indian tribes; a little about the language groups of the Indians. In that way I got in touch with Kroeber and Lowie and this was for many years a very valuable relationship. It was Lowie, for instance, who introduced me to Ratzel. Lowie thought Ratzel was a great mind. I had only known Ratzel by the very limited perspective that we had to through Miss Semple. It was this Lowie-Ratzel introduction that gave me a new opening, an opening of the geography of life of primitive peoples. I might never have gotten into it if it had not been for this originally quite accidental connection. So I became an Indian geographer without having intended to do anything of that sort. This, of course, took me back in culture and in time and when they asked me to give the Bowman lectures at New York, I thought, you might as well express what you think and hope about agricultural origins and dispersals. So it is not a planned course, if anything, it is the fortunate chance to see openings and get into them.

JAMES: I am very much interested in what you have to say about Ratzel. You know, Ratzel, of course, came over to America at one time and you have some new insight on the result of this American trip on his philosophy.

SAUER: You see, he was making a living by writing articles for a newspaper at Cologne. They had published things that he had written when he was gathering marine worms and things on the Mediterranean. He did not have a job so since his letters were being read, they said, you go over to the United States, it is an interesting country right now and write us some letters. Well, he stayed over here for three years and, in addition to writing the letters, it was that time that made a geographer of him. When he came over here he was a zoologist (temporarily a journalist) and it was during these three years when he traveled from the Atlantic coast to the Pacific that he had some very nice pieces on cities. Now, whoever thought of

Ratzel as a city geographer, but he has some thirty essays that deal with the nature of life in different cities, from Boston to New York, down the Atlantic coast to Savannah, then the cities in the interior, and winding up in California. Awfully good qualitative descriptions, appraisals of what urban life was like in the United States and how different it was from the old world. He was a little bit worried about it, but he liked the United States. He said the drawbacks of life in the United States are those of vigorous youth that has not learned moderation. In that way he got on to the discussion of soil destruction by agriculture, especially in the South, but mostly with the cities. How inventive they were, how they built and how they wrecked buildings, how they went for more and more rapid movement. This was alright for youngsters (and that is what we were in this country) but this country was going to come out all right because as we grew up we would get moderation and balance and we would not do the extreme things of reaching for endless increase of population. He thought we would get two hundred million. He thought it might take a couple of centuries to do that. But in the process we would settle down. He said something about the nomadism of American life, which he considered a passing feature too. But, as we get older we would become citizens of the place in which we live. This readiness to jump from one place to another would disappear. This is especially interesting in the way in which he saw dynamic things moving in the United States, but he thought they would diminish and instead, of course, they have increased as nobody imagined it.

JAMES: He also became interested in the Chinese here in California, did he not?

SAUER: Yes, that is what got him his first university job, his lecture on Chinese emigration.

JAMES: Is that so, you mean in Germany?

SAUER: Yes, at Munich. That was his *habilitation* and this, of course, at an elementary level was dispersal and diffusion.

JAMES: And did you say that he was the one who invented the German word *Raubbau*?

SAUER: So far as I know, nobody ever used it before him and he used it a generation before anybody else used it in print, so far as I know. And he used it over and over again. He used it with regard to

cotton and tobacco farming, he used it with regard to lumber devastation. He even knew (although he did not use the term *Raubbau* there) that some of our eastern cities were amazingly smokey, more so than cities in Europe, at least, on the Continent.

JAMES: In other words, he was on the edge of environmental destruction - air pollution and all the rest of these things.

SAUER: He probably, if he had continued much longer, he might be one of the fathers of ecology.

JAMES: This is remarkable. Of course, the interesting thing is that he went back to Germany, then, and wrote his books and became famous as an environmental determinist.

SAUER: Yes, but he overspoke himself occasionally. But still this is a lesser and an occasional side of Ratzel. It is not the dominant thing in him.

JAMES: It is too bad that Miss Semple picked up that side of him. She picked up that theme and did not get the major picture.

SAUER: This has never been explained so far as I know. She was charmed by the old gentleman's lectures there at Leipzig. She sat at his feet and adored him and maybe this was a semester in which he was going that way.

JAMES: Thank you very much, Carl.

SAUER: It has been nice to be with you.

Autobiography of Eugene Van Cleef (1887-1973)

Edited by Geoffrey J. Martin
Southern Connecticut State University

When I entered the University of Chicago in January, 1905, my heart was set on specialization in meteorology. Unfortunately for me, meteorology was not respected in those days as it is now. It had not yet attracted youth in numbers. In fact, courses in this field announced in the university catalog were generally cancelled owing to lack of enrollment. Usually I was the only one to register.

Perhaps I should not have been disappointed with the situation for I had been advised by the then Chief of the Chicago Office of the U.S. Weather Bureau, Professor Henry J. Cox, against specializing in meteorology. Supposedly there was no future here. Still unconvinced by Professor Cox, the latter promised to recommend me for the position of student assistant in the Weather Bureau Office as soon as a vacancy occurred. That time eventually arrived and I received the appointment. I held this evening activity for several years while attending the university during the day. It gave me the opportunity to see at firsthand something of Weather Bureau machinery and to meet a number of men in high places in the Bureau, all of whom discouraged me.

I learned that skill in mathematics would be a necessary aid to advancement in meteorology. Accordingly, I enrolled in advanced mathematics courses, quickly learned I possessed no genius in this field and forthwith shifted to climatology, the descriptive aspect of atmospheric. One member of that class later became Chairperson of the university's department of mathematics. Another ultimately headed the Brookings Institution and others attained outstanding positions. Had my classmates been of a lower order I might have done better! My bachelor's

degree was awarded on the basis of three "minors," namely, climatology, geography, and geology.

It may be a matter of interest to some persons to know that at the time I was interested in specializing in meteorology three other young men, in different parts of the nation, sought the same goal. Two of them passed away at an early age but the third one, Charles F. Brooks, became an outstanding student of the subject at Harvard University, founded the American Meteorological Society and for many years until his death in 1958 was a leader in the field both here and abroad while serving as Director of the Blue Hill Observatory, Hyde Park, Mass.

In the course of my years at the University of Chicago, I worked closely with Dr. J. Paul Goode in the Department of Geography. I did some drafting for him and also took an individual research course in meteorology. It was at this time, too, that Dr. Goode was in close touch with Rand McNally & Co., endeavoring to persuade that organization to publish a new series of wall maps to be edited by him and to establish a map institute comparable in quality and scope with such foreign firms as Bartholomew in Scotland, and Justus Perthes and Wagner and Debes in Germany.

Goode urged Rand McNally & Co. to make a survey among institutions of higher learning to find out the thinking of their teaching staffs with respect to wall maps; whether they would be willing to pay a substantial price for an outstanding American made product and whether or not they would find an interest in a new type of atlas for their students such as the Diercke Schul Atlas which we at the University of Chicago were then importing. Goode knew of my bent toward the business world and recommended my employment by Rand McNally & Co.

I conducted the survey during my years 1908-11 re-

Editor's Note: *This hitherto unavailable autobiographical statement was secured from Eugene Van Cleef (by the editor) in 1970.*

turning to the university for graduate work each summer when, in those days, few schools were open, or were in session only on a reduced schedule. My investigation led ultimately to the decision to publish Goode's series of wall maps including some new projections, a school atlas and a few special wall maps including a glacial map of North America by T. C. Chamberlin and a rainfall map of the United States by myself. Thus, was established, in a sense, a new era in the United States in the field of cartography.

I concluded my association with Rand McNally & Co. when this firm lost interest in the building of a great map institute such as Goode had envisioned. About this time, 1911, I was offered an appointment for one year on the staff of the State Normal School, Duluth, Minnesota, now the University of Minnesota, Duluth branch. The understanding was that if I made good I might be employed upon a permanent basis, particularly if the man on leave and whose place I was taking did not return. I continued on the staff until 1918 when I undertook war work at the American Geographical Society, New York, to which I shall refer again.

In 1912, the American Geographical Society of New York celebrated the sixtieth anniversary of its founding by inviting the leading geographers of Europe to spend three months on a tour across the United States and return. Forty-three Europeans made the trip accompanied by American geographers, some of whom participated in parts of the excursion only. I was among the latter, joining the group at Buffalo and leaving it some ten days later at Duluth.

One of the European guests was Dr. Joseph Partsch, of Leipzig University with whom I became acquainted and who impressed me favorably.

In September, 1913, with the encouragement of W.L.G. Joerg of the American Geographical Society, I matriculated at Leipzig for a year of graduate study. I left the university at the end of July, 1914, just a few days before the onset of World War I.

Partsch's name is not known among present-day geographers as is that of Ratzel's. And yet, in all probability, he was as outstanding a scholar. His contemporaries thought highly of him as witness the honors he received, the various commissions both in and out of the national government and the *Gedaechtniss* memorial to him published in 1927.

Partsch's publications were numerous, among them the classical volume, *Central Europe*, as one in the series of regional geographies edited by H.J. Mackinder, himself author of *Britain and The British Seas* in the same series. Another of Partsch's

noteworthy books was his regional geography on Silesia in four volumes, 1896-1911.

Partsch was an inspiring lecturer, master of the German language and adept in other languages, a superb field worker and a perfectionist in what he undertook. He was truly one of the outstanding scholars of all time.

Among other foreign geographers with whom I developed something more than a passing acquaintance, were Hettner of Heidelberg, Penck of Berlin, Grano of Finland and Chisholm of Edinburgh. And then, of course, there was that great galaxy of geographers who partook of the Transcontinental Excursion of the American Geographical Society (1912) with most of whom I made contact in person. Even after the conclusion of the Excursion I enjoyed the privilege of corresponding with many of them.

Each member of the Excursion had his own unique characteristics which had their impact upon me. Although this is not the place to record their biographies it may not be amiss to indicate the influence which these men had upon my own career. I could read and enjoy the products of their pens so much more than had I not met them.

Their achievements set goals for me to try to attain. My acquaintance with these individuals yielded an aura, although intangible, which was none-the-less one to stimulate a young man seeking a place in the field of his specialization.

I have been asked many times if, when I was in Germany, I knew a war would begin. My response to that question was that I was highly suspicious there would be an outbreak sometime before the year ended. In fact, I forecast this to my family in spring 1914. Such a conflict seemed so unreasonable that my relatives and others in the U.S. declared I must have been misled by my associates in Leipzig; that civilization having reached so high a level at the time precluded any such possibility. I returned to my teaching duties at Duluth in September, 1914.

The question sometimes arises, "How did it happen that you decided to specialize in the field of geography?" I am not certain I have an accurate explanation. I can only surmise about some things. My early youth was spent in an outlying rural area of Chicago. Although there were no mountains or hills to explore, there was vast open space and enough variety in the landscape to invite inquiry. Among other things there was the uninterrupted sky and almost unlimited horizon which seemed to reinforce thunderstorms making them appear worse than they were. Those storms so frightened me as a boy six or

seven years old, that even on a midsummer hot, humid day I would hide under a featherbed. Little did I think, then, that someday as student assistant in the Chicago office of the United States Weather Bureau I would take observations during thunderstorms, reading instruments on the roof of the Adams Street wing of the Chicago Post Office building, the instruments attached to metal handles and/or mounted on metal supports.

During my youth I lived within three to four miles of the Field Museum of Natural History when it was located in Jackson Park and now occupied by the Museum of Science and Industry. I visited the museum frequently and nearly every Saturday during the lecture season. I was under age for admittance without being accompanied by an adult. The guards, however, came to know me as the youngster who would slip in unnoticed but "behaved well." In consequence, I received special dispensation allowing me to attend all of the lectures on my own and without fear of being put out.

These experiences seemed to pave the way for further interest in the elements of nature. I entered high school in 1900 where, in my freshman year, I took a course in physical geography. Later I was exposed to both astronomy and geology. My instructor, Harry Keeler, was an enthusiast and a most stimulating companion of young persons.

Keeler was interested in making map models from topographic sheets. I showed him a special map issue of the Niagara River Valley, which a brother of mine brought back from the World's Fair held in Buffalo in 1900. Keeler asked me if I would like to help him make a model based on it. I accepted enthusiastically. When the model was finished I gave it to the Field Museum of Natural History as a token of my appreciation of what that museum had done for me.

It may be appropriate at this point to say that a few years later (1911), after I had become associated with the State Normal School at Duluth, Minnesota, I proposed to the Director of the Field Museum of Natural History in Chicago that his institution expand its operations. I suggested that the museum employ persons to meet visiting classes from Chicago's public schools to pilot them and their teachers among the exhibits, offering appropriate explanations and interpretations: I pointed out also, the value of small exhibits which could circulate among the schools not only for the benefit of those who could not visit the museum but to provide opportunity for leisurely and more intensive study of the materials.

The Director told me if I could locate someone ready to contribute \$500,000 for the purpose he

would adopt the suggestion and I could have the job of directing the work. I knew no one with vast wealth and furthermore had a job to do in Duluth. In 1912, I was pleased to learn that my idea was not forgotten by the Museum. The press reported that N.W. Harris, a Chicago philanthropist gave \$250,000 to establish the N.W. Harris Fund calling for a joint effort by the Museum and the Chicago Board of Education to put into work a program similar to the one I had presented a year before. Whether my initial suggestion was a factor in this action I do not know. This operation of the Field Museum continues today under the title "The N.W. Harris Public School Extension of the Field Museum."

Upon graduation from high school I became employed for the following summer by the American Tag Company. I made such good progress that I was encouraged by the organization to continue with it. I did so until the end of the year. Although I liked the work, I felt I should enter the university as long as I had the opportunity to do so, and thus left the business world, momentarily at least. Mr. Ward, the vice president of the company, a tall man himself, interested in outdoor life, urged me to specialize in a field that would take me into the out-of-doors. Here again was a "push" toward an environment which the science of geography could, in a sense, provide.

During my years in Duluth (1911-18) I became interested in the Finns. The numerous Finnish students in my classes aroused my curiosity. Why were there so many? Could there be some geographical reason? Going to the reports of the U.S. Census Bureau, I noted a preponderance of Finns located in the northern tier of states. Geographers had long debated concerning the routes followed by immigrants into the United States. Were these migrants influenced by climate? Did they move along isotherms or did they follow parallels? Here seemed to be an opportunity to find the answer so far as one nationality was concerned. This incident sent me on my way to virtually a lifelong study of the Finns in America.

Field work began in 1915 in the United States and proceeded almost continuously for the next 35 years and intermittently since then. The publication of articles in scientific and popular journals led to an invitation from the government of Finland to visit that country. I accepted the courtesy on condition that I remain free to report my observations whether favorable or unfavorable to Finland and its people. My first sojourn there was in summer 1923 followed by two other tours in 1926 and 1931, respectively. My publications, lectures and other activities which called public attention in the United States to the Fin-

nish settlers and to the nature of their homeland, gave rise in 1937 to the conferring on me of a decoration by the government of Finland. This compliment, "Knight First Class, Order of the White Rose of Finland," was followed in 1941 by the decoration, "Commander, Order of the White Rose of Finland," presented in recognition of my service as a member of the Finnish Relief Fund, 1939-40, organized by former President Herbert Hoover to raise funds for the relief of the Finnish people during their war with the Soviet Union. I was appointed by the then Governor of Ohio, the Honorable John Bricker, to direct the work of collecting funds in the State of Ohio.

In 1956, I was appointed Regent for Ohio by the president of the newly established Finlandia Foundation. My function was to organize chapters in various parts of the state. I was successful in establishing only two such chapters, one in Columbus and one in Ashtabula. The foundation has since become affiliated with the American-Scandinavian Foundation.

It may not be amiss at this point to note that most of my writings concerning the Finns placed great emphasis upon their relation to their physical environment and that many, if not most, of my colleagues in the profession were skeptical of my conclusions believing I placed far too much stress upon the environmental relationship. Interestingly enough, since about 1965, the role of the environmental factor in the lives of all mankind has received unusual emphasis in both the physical and so-called social sciences.

Most of my initial studies of the Finns in the U.S., Canada and Finland were brought together in essence in my book, *Finland, The Republic Farthest North* (1929). This book was the first concerning the Finns, produced by an American geographer and the first of its kind in this country. But, interestingly enough, more copies were sold in Finland than in the U.S. The Finns are inveterate readers.

I have referred to the fact that in 1918 I engaged in war work headquartered in the building of the American Geographical Society, New York. Dr. Isaiah Bowman, Director of the Society at that time, invited many geographers to come to join what became known as the House Inquiry, set up by President Woodrow Wilson. For a time it was a highly secretive organization concerned with the preparation of data for the anticipated peace talks to follow World War I. My primary function was the preparation of rainfall and temperature maps for Latin America. Much of the data came from private sources heretofore not publicly available and gave rise to the most accurate

maps of the kind for the region up to that time. After the war these maps were published in the *Monthly Weather Review* of the U.S. Weather Bureau.

In 1919, I entered the business field, joining the firm of Van Cleef Brothers, Chicago, manufacturers of chemical products based primarily on crude rubber. My assignment was to capitalize upon my economic geographic background by forwarding the export phase of the business.

In December 1920, at a meeting of the American Meteorological Society held in Chicago, I presented a paper entitled, "Weather, Climate and Advertising." In the audience was Dr. C.C. Huntington, then chairperson of the newly-formed Department of Geography in the College of Commerce and Administration of The Ohio State University. He was interested in adding to his staff. He discussed with me the plans for his department. Shortly thereafter I was invited to join the Department. I accepted and was appointed an assistant professor in September 1921. The combination of my academic training in geography and business experience qualified me for the position. A curriculum leading to specialization in International Trade was offered in the Division of Marketing. Because of my world trade experience, the direction of this curriculum was assigned to me. There was no objection to the fact that I was a member of the Geography Department. Later I was given concurrent rank in the department of Business Organization.

My first teaching schedule included a course in the "History and Geography of Commerce." A part of that course dealt with cities as trade centers. As the department expanded its staff I relinquished this course to a new member, with the understanding that I could develop a new course focusing upon the city as a trade center. This became the first course (1923) in an American University dealing exclusively with urban geography.

Inasmuch as the expression "Urban Geography" was uncommon in those early years and did not appeal to the college faculty as a subject appropriate for students being trained for business, I adopted the title, "Trade Centers and Trade Routes," which had a commercial ring and in turn satisfied the college. Incidentally, the expressions "trade centers" and "trade routes" in the title were defined in terms much broader than normally interpreted. While these maneuvers saved the course, they led to some delay in the recognition of the course as one concerned with cities. When, in 1937, the material, heretofore issued in mimeographed form, took permanent book form, the latter was overlooked as a text in urban geography. Happily, in the long run, it proved

to be a stimulus to the introduction of courses in urban geography in many universities.

After I had decided I would continue in the field of teaching it seemed logical to seek a Ph.D. degree, for this degree, rightly or wrongly, is the symbol of one's "completion" of his formal education in his chosen field of specialization. Accordingly, I spent the year 1925-26 at Clark University, Worcester, Mass. I chose Clark because Dr. Wallace W. Atwood, President and Director of the Graduate School of Geography had been my instructor in physical geography when I was a freshman at the University of Chicago. I had always admired him as both a teacher and a gentleman. It also happened that, at the time, the geography staff at Clark University was the strongest in the nation. The permanent members were augmented by visiting scholars from other parts of the nation and from abroad. Such names as C.F. Marbut from the U.S. Bureau of Soils, O.E. Baker from the U.S. Department of Agriculture, Olaf Jonasson from Göteborg, Sweden, contributed much to the quality and stature of the department.

In the course of my year at Clark University I was asked, during my preliminary examination for the Ph.D. degree, to indicate what kind of geography department organization I would attempt if given unlimited funds. Among other things, I pointed out the need for a course covering the history of geographic thought. Up to that time university departments of geography in the United States had been conferring degrees upon young people largely ignorant of the history and development of their professional field. My suggestion impressed those present and in consequence Dr. Atwood requested Miss Ellen Semple, then in residence, to offer such a course.

Miss Semple's effort in the spring of 1926 was not quite what I had in mind. She placed the emphasis upon exploration with limited consideration of the philosophies of geographers down through the centuries. When I returned to The Ohio State University, I proposed the offering of a course such as I had in mind, for spring 1927. So far as I am aware, it was the first of its kind offered in an American institution.

In 1932, I had the privilege of organizing and heading the first geography section of The Ohio Academy of Science. Interest has continued in that section which in turn has helped to arouse activity in the science throughout the state. In 1937, I became treasurer of the Academy and in 1941, president. In 1963, I was made the first Honorary Life Member.

Shortly after coming to Columbus (1921) I was invited by the Chamber of Commerce to become a

member of a three-man committee on International Trade. The Chamber was aware of my work in developing an export department at Van Cleef Brothers and accordingly sought to take advantage of this experience. The committee made little headway until, under my influence, it organized an Export-Import club shortly after World War II. Columbus, a rather provincial city in those days, needed something like this to give it an awareness of the role it could play in world affairs. The value of Columbus' exports has increased notably as has public interest in world trade. In recent years, upon my urgence the Ohio State Fair has given some space to foreign exhibitors who, however, have not sustained their interest owing to the lack of adequate display facilities. There is promise, however, at the moment of this writing, that the situation will be greatly improved and foreign exhibitors encouraged to return either to the State Fair or to participate in an International Trade Fair.

For many years I kept in close touch with businessmen throughout Ohio, with editors of foreign trade journals, with the National Foreign Trade Council and also cooperated in international trade research with the Bureau of Business Research of The Ohio State University. These associations gave rise ultimately to the publication of special monographs and to the writing of a small book, "Getting Into Foreign Trade," intended for those firms wishing to know how to go about expanding their activities across international boundaries. In 1969, the International Trade Committee of the Columbus Area Chamber of Commerce presented me with their annual award in recognition of my work.

My interest in the application of geography to business was not confined to the international aspect. To begin with, the Department of Geography in its infancy was primarily a service department to the students registered in the College of Commerce and Administration. This meant that most of our courses were slanted in the direction of business. I conceived the idea of writing a book for the "man in the street" to reveal to him how he might utilize the science in his business. This publication, **Geography for the Businessman** (1943), was the first of its kind published in this country. I may add immodestly that probably no geographer, to the present time, has published as extensively as have I on the relationship between geography and business.

In the late 1920s and early 1930s I became interested in improving the teaching of economic and commercial geography at the high school level. Many high school students aimed at a business career and

not a college education. There was an outdated text, **Commercial Geography**, by C.C. Adams, which seemed to me to be the only truly *commercial* geography at the time. I suggested to the publishers, D. Appleton-Century Co., it be brought down to date. After some futile efforts, the publishers asked me to do the job. I was reluctant to undertake the work and what was more, a closer examination of the book revealed that a thorough revision would mean actually a complete rewriting. Ultimately, I put my hand to work on the writing of a new textbook. Owing to a business depression the publishers hesitated to bring out a new book and so by agreement I turned to another organization, Allyn & Bacon, who signed a contract.

The first issue of the textbook was released in 1937 under the title, **This Business World**. After World War II, public attention was directed to world affairs as never before. So it seemed appropriate to change the title when a new edition appeared in 1949 to **Global Geography**. Another revision, appearing in 1959, carried the name of a co-author, John Finney, the publishers wishing to fall in line with competitive books which included the name of a high school teacher as a co-author.

My interest in urban geography was aroused no doubt by the fact that I was born in a large city, Chicago, and spent my youth there and was reared in an atmosphere where the urban structure and its future received much attention, both among officials and the general public. In 1949, the Mayor of Columbus, Ohio, invited me to serve on the Planning Commission, and soon thereafter, as vice-chairperson, I represented the commission on the newly organized Franklin County (in which Columbus is located) Regional Planning Commission. I also became a member of the latter's executive committee. Those several years of service provided abundant opportunity to apply my knowledge of geography and to gain practical experience in a field still quite young.

Some years later I shifted my place of residence to the suburban city of Upper Arlington where I was asked to join its Planning Commission (1960-62). In Ohio a member of a city planning commission must be a resident of the city concerned. This service in a small city, about 34,000 persons at the time, enabled me to make a variety of comparisons with procedures in a large center. On the whole, the principles involved were the same in the two centers, only the scales differed. Even so, it became evident that the role which one could play who had been trained in geography was significant. I was encouraged to con-

tinue to focus upon the field of planning.

Although some phases of city planning involve the application of various aspects of the science of geography it always seemed to me that progress in planning was all too slow due largely to the failure of planners to work closely with the public. Progress in planning cannot be made dependent solely upon the support of city officials. In fact, many officials are quite as ignorant concerning planning as the "man in the street." So it is that a continual program of public education is essential if we are to get anywhere in this field. To that end, I produced a small book entitled **Cities in Action** (1970). It is written in very simple language and in short essay format to enable the average citizen, and for that matter the leading citizens, to understand what planning is about, its problems, and what is involved in their solution. This effort in part, at least, is another of those I have exerted from time to time to reveal the practical application of geography to everyday life.

With reference to attempting to use one's knowledge in a practical way, the term "practical" can have different connotations. A case in point involved my experience in the Army Intelligence Service, G-2, where I served as a consultant covering central Europe and Finland during the latter part of World War II. I commuted weekends between Columbus, Ohio, and Washington, D.C.

This term of duty brought to light the difference between observing during one's travels in his own interest and gaining a comprehensive volume of information useful in the interpretation of all conceivable aspects of a given locality or region. I had no leaning toward military affairs on my various trips to Europe. Now, G-2 wanted specific data concerning the terrain of certain areas which could be used to military advantage. I could supply such information in a limited way only. In other words, my own research had practical value in a given direction but not in all directions, certainly not military.

Returning to the consideration of my interest in meteorology and its practical application I recall vividly the approach of the chief forecasters in the U.S. Weather Bureau when I was employed as a student assistant. These men generally had in mind "typical storm paths" and shaped their estimates of future weather for Chicago upon the composition of the weather map on a given day in relation to "type" storm paths. To what extent did current data conform with paths for the time of year or to what extent did they diverge? I was suspicious of the type storm path map which was in vogue at the time and decided to

look into the matter. That map seemed to me to be too simplified.

My investigation, the results of which were published in the *Monthly Weather Review* (1908), pointed up not only the numerous paths which seemed to fall into certain broad patterns, but that to generalize could be disastrous for forecasting. My resultant map of "Type Storm Paths" gave emphasis to the fact that, while paths might seem to follow a general pattern, a very slight shift of as little as twenty miles for example, in any given direction could result in important differences in local weather. These maps of mine became standard for some years. Unfortunately, in more recent times there has been a tendency on the part of forecasters to revert to the simple map similar to that of a half century ago, presumably because advances in analyses of atmospheric behavior and a quantitative approach to forecasting have made maps of "typical" storm paths largely obsolete.

Another applied meteorological effort which gave me considerable satisfaction dealt with the relation between streetcar traffic in Duluth, Minnesota, and the weather. Insofar as the Weather Bureau forecast was correct, I could predict the number of daily passengers within an error of three per cent and not infrequently within one per cent. This study was published in the *Geographical Review* (1917).

In the course of World War I, more men than were needed were trained in meteorology. In subsequent years, additional persons decided to pursue this field but unfortunately the number of jobs available calling for specialists was limited. After World War II a committee was organized to seek ways and means of providing jobs. It came upon my study and requested permission to reprint it as an example of the practical use to which meteorological studies could be put in the business world. Needless to say, permission was granted.

The advent of radio receivers in the home in the 1920s accompanied by a popular belief that radio transmission was affected by the "weather" prompted me to doubt the validity of this generalization and to seek to interpret the real meaning of the term "weather" in this situation. I suspected that "weather" actually meant barometric changes and not rain, or temperature variations, or wind, etc. This suspicion was supported by extended observations on the relation between "good" and "bad" reception, static, etc., and the relation between the locations of the sending and receiving stations to the existing high and low pressure areas.

Briefly stated, I found that signal strength was

greatest when the direction of transmission between the sending station and the receiver was at right angles to the isobars and weakest when parallel with isobars. Also, reception was better under high pressure conditions than under low pressure. Further, the steeper the isobaric gradient the clearer the signal.

The editor of *Tycos*, a house organ of The Tayler Instrument Company of Rochester, New York, was attracted by this study. He published a few short articles of mine and then conceived the idea of encouraging the organization of radio "clubs" to broaden the collection of data. Following this (1926) the company published a booklet which it had asked me to prepare under the title, **The Weather for Radio Listeners, Broadcasters and Others.**

This study came to the attention of the U.S. Navy which was responsible at the time for tracking hurricanes off the southeast coast of the United States. My data were transferred to the Navy which found them useful in their work. At the time of this writing I do not know whether the data are still used. Probably the computer and direct observations from airplanes have superseded former procedures.

Just as quantitative methods have played a critical role in the field of meteorology so are they influencing research methods in geography. With the opening of the decade (1960-70), quantitative devices came into play in almost kaleidoscopic fashion. The urban field seemed to offer greater working space, as it were, than other aspects of the science. Accordingly, the mass of quantitative literature to this time has focused upon urban investigations. I have been critical of the "quantifiers," even though as long ago as 1913 I published a paper in the *Journal of Geography* advocating greater use of statistical data and declaring the quantitative approach essential to the development of geography as a true science. My principle criticism of the recent quantifiers lay in their choice of some aspect of urbanistics, not always geographic, as a topic, its conversion into a type of so-called model and subsequent evolution of a mathematical program frequently based upon erroneous assumptions and all too often leading to no positive constructive conclusion. In fact, such conclusions as they do reach seem to be in the realm of mathematics and not geography. They seem to have lost sight of mathematics merely as an *aid* to the solution of a geographical problem and made it an objective in itself.

For some fifteen years (1944-58), I wrote occasional editorials for the *Saturday Evening Post*. Most of them were related to current affairs and were given a distinct geographical flavor. These items afforded me

another opportunity to associate geographical principles or philosophy with the working world and seemed to please the editors of the *Post*.

Inasmuch as geography is an earth science it is essential that a geographer travel to acquaint himself at first hand with as many of the earth's characteristics as possible. Professor H.H. Barrows said to me one day while we were traveling with the Transcontinental Excursion of the American Geographical Society, that his policy henceforth would be not to write about anything seeable unless he had seen it. I have been fortunate in having had the opportunity to travel rather extensively. My first trip overseas occurred in 1907 and was followed by 14 other tours in lands overseas. In addition, trips to Canada and throughout the United States and Mexico have come to pass. With a few exceptions these travels have yielded subjects for papers subsequently published either in scientific journals, in non-geographical professional journals or in the popular press. Now and then there were trips that gave rise to a series of articles as, for example, a visit to the Baltic countries which resulted in the publication of eight articles treating with the Baltic ports, in the *Christian Science Monitor*, 1926-27.

One of the great pleasures derived from the many years of teaching geography lay in the contribution which the subject matter afforded in the broadening of a student's horizon. Most of the youths, from grade school through the university, had limited experience and had seen little of the earth at first hand beyond the immediate environment of their places of residence. In the classroom they could augment their knowledge of the earth, even though it came about in second-hand fashion. For the teacher there was the possibility of stimulating the student's curiosity, whetting his appetite for more information, providing a basis for exercising his ability to reason, building within him the spirit of tolerance and in general yielding a background against which he could develop a well balanced, broadminded attitude toward virtually all facets of life.

It has been my privilege to address many different kinds of audiences, professional, business, student, church, and mixed groups. The range of subjects has been wide, often focusing upon current situations, or upon academic matters, historical, or of the travelogue variety. Invariably the audiences have revealed considerable interest in the presentations and have yielded the impression that geographers have the potential to contribute in an important way to the public's enlightenment and particularly to awaken in that public an awareness of its relation to both its physical and social environment.

In addition to some "firsts" already noted I had the privilege of introducing other aspects of the field. In 1932 I suggested "Urban Profile" which in a sense was a synonym for "silhouette" ("The Urban Profile," *Annals, Association of American Geographers*, Vol. 22, pp. 237-241). In association with this new term I pointed out an upper and a lower horizon and also called attention to the manner in which the outline of the profile revealed the architecture of the time and hence the approximate period of construction of the buildings.

At another time, I endeavored to introduce to the American geographer the term "Umland," an expression which originated both in Germany and in France independently of each other ("Hinterland and Umland" *Geographical Review*, Vol. XXXI, 1941, pp. 308-311.) I used the term for the first time in my book *Trade Centers and Trade Routes* (1937) and elaborated upon it in the paper published in the *Geographical Review*.

In this same paper I pointed out the desirability of referring "Hinterland" to all the area, land or water, within 360° of the center of reference. The Germans and French had restricted the use of the term to the land side of a port only. Thus new meaning was given both to "Umland" and "Hinterland."

Geographers have long debated definitions of their field. A few decades ago one of them suggested that its primary function is to point out differences between places or regions. I could not see that this concept would strengthen geography as a science. In a paper in *Science*, I asserted that differences between places or cultures or any other phenomena, without a base of reference could never lead to the discovery of laws or provide a basis for prediction ("Areal Differentiation and the Science of Geography," *Science*, Vol. 115, June 13, pp. 654-5.) Only through the discovery of similarities can laws be established.

Throughout my professional career I have often dissented from the conclusions reached by my fellow geographers and from their philosophies. In all probability this has come about because my early training and background, particularly my association with the business world and my opportunity to travel abroad, beginning at an early age, have broadened my outlook upon life and sharpened my judgement.

I retired from teaching at The Ohio State University in June 1957 with the rank of Professor Emeritus. As witness events which have occurred since then, my intellectual activities were not terminated at that time. In fact, a small paperback book, *Cities In Action*, is expected momentarily from the press (1970).

Three Months in the Field: September 12 to December 12, 1934

By Walter W. Ristow
Library of Congress, Retired

“Throughout his teaching career,” as Koelsch has reported, Wallace W. Atwood’s “emphasis on the primacy of field studies was to be a significant influence on student thinking ‘in the field’.”¹ It was inevitable, therefore, that the Graduate School of Geography, which Atwood founded in 1922, would place considerable emphasis on individual and group field studies. Accordingly, in the fall of 1927 a special field school in geography was established.

The 1927 field camp, located near Greenfield, Massachusetts, in the northern part of the Connecticut River Valley, operated during the first three weeks of the fall semester. Success of this first camp induced the faculty to make this a regular feature of the Graduate School of Geography curriculum. In the succeeding three field seasons the central and southern portions of the Connecticut Valley were studied and mapped.

In 1931, the locale was shifted to Cape Cod where, from two successive camps, the entire extent of the Cape was surveyed. Field parties for the first three weeks of the fall terms for the years 1932 and 1933, again operated in the Connecticut River Valley. By this time the fall field camp had become an accepted and valued feature of Clark’s Graduate School of Geography. Success of the three-week camps suggested the possibility of devoting most of the fall semester to work in the field.

The School of Geography faculty, therefore, announced a three-months field season to commence

September 12, 1934. The announcement brochure noted that

The idea of the comprehensive field course originated several years ago. Some of the former Clark students may recall the evening in camp when the plan was first proposed. From that enthusiastic meeting came the determination which has made the dream a reality. The plans have been patterned after the field camps of the past seven years, but in the more comprehensive program for 1934, the graduate school is scheduled to operate in the field for the greater part of the first semester of the academic year.²

Tentative plans for the three-months field course were made some two years in advance. In fact, the split-coach trailers which were to house faculty and students throughout the excursion, were purchased in the summer of 1933, and were used in the fall of that year at the camp set up near South Hadley, Mass. The cost for five standard, one deluxe, and one cook coach was under twenty-four hundred dollars. Shortly before the 1933 field camp opened, the staff of the School of Geography also authorized the purchase of three used Ford V-8 touring cars, at a cost not to exceed five hundred dollars per car.

Preliminary plans for the three months trip were formulated at conferences of the Geography faculty, including laying out the route, selecting camp sites, deciding on the nature of the studies to be pursued at each, and the assignment of faculty members to the several camps. To obtain first hand information, Dr. Clarence F. Jones, in August 1933, drove down the Cumberland and Shenandoah Valleys, and through the length of Florida to check out prospective camp and studies sites. Jones’s reconnaissance was followed up more comprehensively in May 1934 by Dr. and Mrs. Wallace W. Atwood, Jr., who traversed the entire course of the proposed itinerary and success-

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fully negotiated camp site arrangements with colleges, universities, summer camps, state parks, and agricultural experiment stations. This dry run also helped prepare Wally Atwood for his varied and demanding responsibilities as general manager, quartermaster, and head of the commissary department of the expedition.

Concurrent with these logistical plans and arrangements, the faculty was accepting student applications for the academic year 1934/35, and for the Three Months in the Field party. Tuition for the first semester was one hundred and ten dollars, and the field trip fee was set at three hundred dollars. The economic depression, which had begun in 1929, gave little indication of easing by 1934. To insure filling the quota for the field party, the faculty voted, on May 16, 1934, that "as the autumn field trip is to take the place of regular graduate work during the first semester, acceptance of all appointments in the Graduate School of Geography will indicate the enrollment of the appointees in the autumn field work." In brief, it was mandatory on all recipients of fellowships or grants to participate in the field program. Liberal policies were also adopted, by the Graduate School of Geography, in approving student loans to help cover field trip fees, and five of the male participants received a small reduction in fees as compensation for driving cars on the expedition.

By the end of the 1933/34 academic year it was apparent that the country's depressed economy was seriously limiting applicants for the scheduled field trip. As departure time drew every closer, requirements were relaxed to accept applicants who had no previous graduate training. By early September the roster numbered eighteen students, two less than could be accommodated in the five student trailers. The group included fifteen men and three women. Eight of the individuals (six men and two women), had had one or more years of previous study in the Graduate School of Geography. Six were Ph.D. candidates and two were working towards their masters degree.

Of the ten participants who were first entering on graduate work at Clark, three (one woman and two men) had masters degrees from other institutions, and one, a Swiss citizen, had an advanced degree from the University of Zurich. Of the remaining six party members, all men, five had completed their undergraduate studies the previous June, and one was a senior at Clark College. Two of this group had, during the previous summer, done physiographic field work in the Rocky Mountains with President Atwood and Dr. Atwood, Jr.

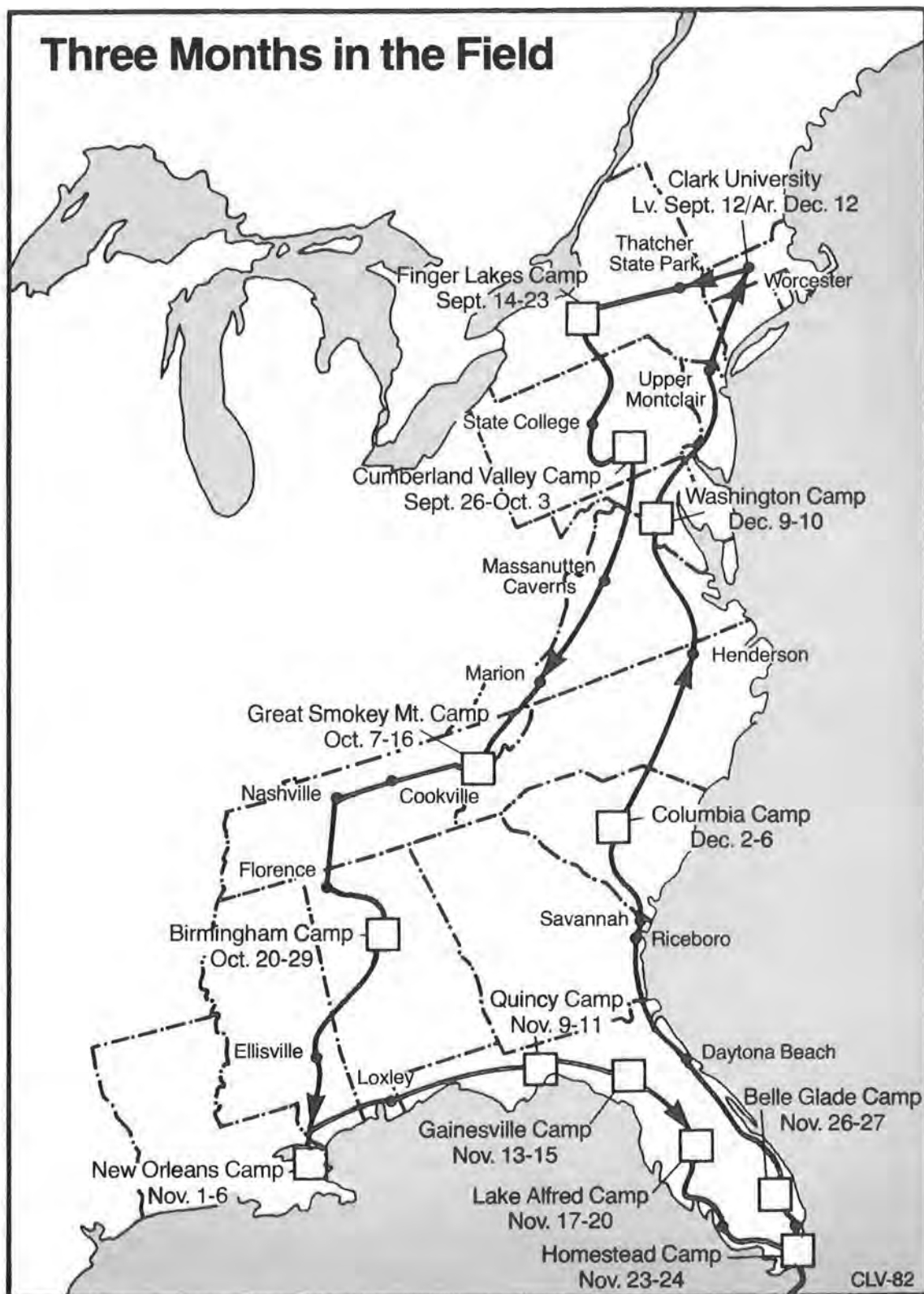
Five of the then six members of the School of

Geography faculty actively participated in the Three Months in the Field program. Dr. Wallace W. Atwood, Jr., as noted, served as field director, and remained with the party throughout the expedition. His excellent performance was recognized in the Three Months in the Field souvenir issue of *The Monadnock*, the newsletter of the Clark University Geographical Society. Under the headline "A Tribute to Our Field Director," the editor wrote

We congratulate our field director upon his successful execution of a tremendous assignment. The untiring perseverance, his jealous care of valuable equipment, his concern for our comfort and welfare, his amazing coolness in real emergencies — all these have won for him the profound respect of every student in the party. To his generous allowance for amusement and entertainment and his own hearty participation in our fun, we drink a toast in fellowship. Hats off to Dr. Wallace W. Atwood, Jr., Director of our epochal field excursion.

Wally also assisted President Atwood in directing physiographic studies, particularly at those study sites where the latter was not present. Dr. Clarence F. Jones was in charge of economic, industrial, and urban studies, and land utilization, agricultural geography, soils, and vegetation field work was directed by Dr. W. Elmer Ekblaw. Dr. Samuel Van Valkenburg's responsibilities covered weather and climate. Except for Wally Atwood, faculty members alternated at the several study camps. A most essential member of the party was Hilbert Fern, a native of Sweden, who served as cook throughout the three month expedition. Mrs. Wallace W. (Celia) Atwood, Jr., shared the women's coach at several camps, and contributed much to the general comfort and harmony of the field trippers.

On Tuesday morning, September 12, 1934, the seven coaches and cars were lined up in front of Jonas Clark Hall. In addition to the participants, some fifty or sixty faculty, students, and towns people were on hand to witness the start of this eventful expedition. Shortly after ten a.m. the caravan pulled out of the Clark campus, led by Dr. Wallace W. Atwood, Jr. driving a Ford V-8 station wagon, to which was hitched the specially-constructed kitchen coach. Snaking behind him were a Buick convertible and five Ford V-8 cars, models 1932 to 1934, each towing a coach. One of the Fords was a two-door sedan, the others were four-door touring cars, with tops that could be collapsed in good weather. Bringing up the rear of the procession was President Wallace W. Atwood, in his Lincoln Continental, accompanied by Dr. Samuel Van Valkenburg, Dr. W. Elmer Ekblaw, and Dr. Clarence F. Jones.



The line of cars and coaches shortly reached the western limits of the city of Worcester, then moved westward across the New England uplands, and traversed the Connecticut River Valley and ascended the eastern slope of the Berkshire Mountains. Albany, New York was negotiated during late afternoon rush hour, with one car and trailer involved in a minor traffic accident. Overnight camp was pitched in New York's Thatcher State Forest, on the crest of the Helderberg Escarpment, at the northern extremity of the Appalachian Plateau. Because the cook was still unfamiliar with the mobile kitchen and equipment, dinner was delayed until eight-thirty.

It may be pertinent at this point to describe the coaches, which were our living quarters for thirteen weeks. Manufactured by the Split Coach Manufacturing Company, York, Pennsylvania, the coaches, when closed for travelling, were the approximate width of a car and about seven feet high. Within the six dormitory coaches were four bunks, two uppers and two lowers, a closet, a bank of drawers, and a wash basin. The reservoir for the latter had to be manually filled. For overnight stops the coaches were not expanded, and interior lights were supplied from car batteries. At major camp sites the sides of the coaches could be expanded at the tops raised to provide more than twice as much interior space as when closed. A team of four men, after a week's experience, could efficiently open or close a coach within fifteen or twenty minutes. The large kitchen coach was somewhat more of a challenge. The walls of the coaches were formed of thin steel plates, with no insulation. On cool nights during the latter weeks of the trip, contact with the cold walls was a chilling experience.

The second day's route took us down the face of the escarpment to the Mohawk Valley which we followed westward on a rather raw and bleak September day. Our objective was the campus of Wells College for Women, near Aurora, New York, where we arrived shortly before five o'clock. Because this was to be our study site for ten days, the coaches were opened for more comfortable occupancy. Ardors of the male members of the party were quickly cooled when it was learned that the college term did not begin until the day before our departure.

Field studies in the central New York Finger Lakes area focused on depositional glacial land forms, agricultural land utilization, and the industrial and urban geography of the city of Seneca Falls. Recollections of this first study region include the delicious autumn apples, pears, and grapes, first K.P. duty, and a number of rainy days and nights, and because of mis-

understanding about a meeting place, one team of two being stranded miles from camp. They managed to hire a ride and arrived back at the coaches, disgruntled and hungry late in the evening.

With cool autumn nights in the offing, we were glad to break camp on September 24, and head to warmer regions, via the southern New York portion of the Appalachian Plateau and in to Pennsylvania. Here we crossed the terminal moraine on the dissected plateau, then followed the trend of the ridges and valleys of the folded Appalachians. Our overnight stop was in a wooded area adjoining Pennsylvania State University's athletic field. Several P.S.U. faculty members and wives were our guests at dinner that evening, among them Dr. and Mrs. Raymond Murphy. Ray some years later joined the School of Geography faculty and, after Dr. Van Valkenburg's retirement, succeeded to the directorship.

From State College on September 25, we drove southwest following a broad anticlinal valley flanked on the east by Tussey Mountain. After a lunch stop the caravan turned east, crossing several ridges through gaps, and reached the Great Valley at Chambersburg, in mid-afternoon. Another hour's drive brought us to the second major field camp on the campus of Shippensburg State College, in the Cumberland Valley. A distinct advantage of campus sites was the availability of warm showers.

Agricultural land use, Pennsylvania's early iron industry, and geomorphology of the northern Appalachian Mountains were the principal studies pursued in the Shippensburg region. Particularly striking was the contrast between the prosperous "Pennsylvanian Dutch" farmsteads, in the limestone valleys, and the marginal farms on the igneous and metamorphic rocks on the slopes of South Mountain, a northern extension of the Blue Ridge. In this region of folded and eroded geologic formations, the students became intimately acquainted with peneplains and vestigial erosion surfaces. From a fire tower on the summit of Sherman Mountain, there was a magnificent panoramic view of Kittatinny Mountain and the level crest of Kittatinny Peneplain. The Shippensburg stay was also enriched with a Sunday visit to historic Gettysburg Battlefield.

The expedition left Shippensburg on October 4, for a three-day drive down the Great Valley, much of it through steady rain. After reaching the first overnight, at Massanutten Caverns in Virginia, several cars were unhitched from coaches, and the group had a short drive over the still uncompleted Skyline Drive, in the new Shenandoah National Park. Later we were entering the caverns for a night

tour when President Atwood and Dr. Van Valkenburg rejoined the field party.

From Massanutten the route continued down the Great Valley in western Virginia, on rather poor roads and with a cold unfriendly rain. The scheduled camp site for the night was on the grounds of a small country club at Marion, Virginia. The lodge proved to be at the summit of a hill which had to be ascended on a dirt road which had been rendered slippery by the all-day rain. Man power was required to assist cars and coaches in negotiating the slimy incline. It was by this time past six o'clock, with little daylight remaining when all had attained the summit. Finding the clubhouse locked, Wally Atwood was obliged to make a forced entrance through a basement window. The dilemma was compounded when it was discovered that electric power was disconnected in the lodge. After a late dinner, we managed to kindle a fire in the fireplace and were able to warm up and dry out before retiring for the night.

Rain continued to fall through the night and the access road to our camp site, by morning, resembled a muddy river. Manual power was again required to get several of the cars and coaches down the slope. By early afternoon we crossed the state boundary into Tennessee under clearing skies, and several hours later reached the Great Smoky Mountain camp site, near the town of Gatlinburg. The coaches were set up on the grounds of a boys summer camp, and we had use of the lodge and shower facilities. The Little River, a torrential mountain stream, cascaded down a V-shaped valley adjacent to the camp, and provided an opportunity for cold dips and some primitive laundering. Physiographic studies, directed by President Atwood, weather and climate surveys by Dr. Van Valkenburg, and mountain land utilization work with Dr. Ekblaw filled the ten days at the Great Smoky Mountain camp. Particularly memorable is Dr. Van's twelve-hour temperature profile across the mountains and valleys. In teams of two we were stationed at intervals over the terrain, and from five a.m. to five p.m., we took temperature readings every half hour. At my post, which I shared with Jim Minogue, the twelve-hour range was from forty-four degrees to seventy-one degrees.

A sixteen-mile hike to the summit of Mt. Le Conte (6,593 feet), one of the highest peaks in eastern United States, rewarded us with a magnificent panorama of the forest-covered Great Smoky Mountains. One well-remembered afternoon, four of us explored the Cades Cove region, where there were still small settlements of mountain people. We stopped at the log cabin home of five Walker sisters,

who had spent their entire lives in the region, and were virtually self sufficient. In recording this day's experience in my diary, I stated "this afternoon was without doubt the most interesting of the entire Great Smoky Camp."

President Atwood, Drs. Ekblaw and Van Valkenburg, and Mrs. W. W. (Celia) Atwood, Jr. left the party toward the end of the Smokies camp, on October 17, and headed west through Tennessee. Our overnight stop was in Cookeville, on the campus of Tennessee Polytechnic Institute. The following day we drove up the slope of the Highland Rim, and by noon assembled in the center of Nashville, to fuel the cars and repair several minor tire leaks. We saw our first cotton field that afternoon where a crew of colored laborers were picking the white bolls. Florence, Alabama, our next overnight stop, was reached by mid-afternoon. Camp was pitched on the banks of the Tennessee River, about a mile below Muscle Shoals Dam. In late afternoon and the following morning we visited several of the buildings and facilities of the Tennessee Valley Authority, which was then much in the news, as a major development of President Roosevelt's New Deal.

From Florence it was a fairly easy run to Birmingham, where our camp site was on the grounds of Birmingham Southern University. Under Dr. Jones's guidance, the students prepared an urban land use map of Birmingham, and studied the iron and steel industry, including a visit to a coal mine, at this study site.

Birmingham was also the home of Sara Waites, who had the previous year received her M.A. degree from the Graduate School of Geography. On Saturday evening, October 27, Sara's parents, Methodist Bishop, and Mrs. Waites, entertained the field party at a buffet supper. Sara's brother, Bennett, a student at Southern, won kudos from the male members of the party for his extraordinary feat of arranging blind dates with some dozen or more of the university's most attractive coeds. This, needless to say, proved to be the most enjoyable social evening of the entire three months.

On October 30, the caravan moved southwest from Birmingham over some rough and unsurfaced roads. Upon arrival at our overnight bivouac in Ellisville, Mississippi, we found heavy deposits of dust in the coaches. On the last day of October a short drive took us to New Orleans where, early in the afternoon, we pulled onto the athletic grounds of Tulane University, where we set up the coaches for our six-day stay. Projects in the river delta city included the pattern of settlement and land utilization on the flood

plain and levees of the Mississippi River, sugar cane culture, and studies of the port and warehouses for coffee, bananas, and cotton. There were also several evening tours of the bistros in the Vieux Carree and, on Sunday evening November 4, we were treated to a sumptuous five-course dinner in one of the French Square's better restaurants.

From New Orleans, on November 7, the expedition headed east, crossing the southern tips of the states of Mississippi and Alabama, and traversing most of Florida's panhandle. From November 9 to 29 we drove over much of Florida studying various types of land utilization. All of our camp sites in the state were on the grounds of agricultural experiment stations. At Quincy, in the north, the tobacco industry, Fuller's earth mining and processing, hardwood lumbering, and stock farming invited attention. At Gainesville, the second Florida camp, night temperatures dropped to twenty-seven degrees, and we wondered where we would find that good Florida sunshine. An evening at the home of Dr. Rollin and Mrs. Atwood, was one of the highlights of the Gainesville stop. Rollin, the older son of President and Mrs. Atwood, was then on the geography faculty of the University of Florida.

The Lake Alfred Experiment Station, where we camped from November 13 to 15, specialized in citrus fruit. The coaches were set up in a grove of live oak trees, draped with Spanish moss, and surrounded by an extensive citrus orchard. We had *carte blanche* to pick as much of the fruit as we wished, and orange and grapefruit juice flowed like water throughout our stay. A Sunday drive through the central Florida citrus groves had as its goal the famous Bok carillon tower, near the city of Lake Wales.

From Lake Alfred to Homestead in the southern part of the state, was a two-day drive. The overnight, on November 21, was at Naples, on the grounds of a country club, on the shore of the Gulf of Mexico. We spent a delightful afternoon, evening, and morning here, enjoying the warm Gulf bathing, the fascinating shell beach, and (for some) the golf course.

The Homestead state farm was, at the time of our visit, experimenting with growing avocados, truck crops, mangoes, papayas, and coconuts. That camp also included a drive to the northern Florida Keys, where there were several lime orchards. A free day on Saturday, November 24, provided an opportunity to explore the city of Miami and, at depression prices, to enjoy a delicious sea food dinner at a cost of fifty cents.

The Belle Glade Experiment Station, in the Everglades at the south end of Lake Okeechobee, was our

final study camp in Florida. Because of the soft muck soils, the coaches had to park on concrete tennis courts. Truck crops, especially beans and celery, and sugar cane, were the crops being developed in this area.

We were on the road again on November 28, heading north parallel with the Atlantic Coast. While crossing a small, high angle bridge the hitch on one of the coaches snapped, necessitating a stop for repairs by the driver, Rube Parson, and Wally Atwood. The remainder of the party, under Dr. Van's leadership, proceeded to Daytona Beach, where the coaches were lined up on the sand, above the high tide line. Rube and Wally arrived in the Buick, with the repaired coach hitch, later in the evening.

A late breakfast on Thanksgiving Day, November 29, was followed by lectures on the climate of Florida, by Dr. Van Valkenburg, and a summary of coastal plain physiography, by Dr. Atwood, Jr. The remainder of the holiday we enjoyed the sun, surf, and beach. Thanksgiving dinner, somewhat below expectations, was served at a shore restaurant. A drive on the hard packed Daytona Beach speedway, and a dance at the Pier Casino occupied the evening hours.

For the first five or six miles after leaving the Daytona camp, the caravan moved northward on the smooth sand as far as Ormond Beach. We spent several hours at historic old Fort Marion, St. Augustine, and had a short stop, for refueling and purchasing food supplies, in Jacksonville. Beyond St. Augustine the palm and palmetto vegetation gave way to deciduous forests, and by mid-afternoon we crossed the state line into Georgia. As the sun lowered, temperatures fell sharply and we were uncomfortably aware, in the open V-8s, that we had left the sub tropics behind us.

Because of the long St. Augustine stop, the caravan was behind schedule, and when darkness fell, around five p.m., we were still fifty miles from our planned overnight stop, some ten miles south of Savannah. The caravan leader accordingly increased speed to make up the lost time. The Ford V-8 driven by Norm Carls was second in the procession, with Dr. Van in the front passenger seat and Bob Simpson and I trying to keep warm in the rear. Suddenly a small unlighted truck loomed directly in front of us and, in a split second, we had struck it a glancing blow. Our car and trailer ended up in a shallow ditch, but remained upright. A quick survey confirmed that there were no injuries in our car, and that the driver of the small truck was more frightened than hurt. We hailed a passing car and asked the driver to inform Wally

Atwood (who was driving the lead car) of the accident. The remainder of our caravan had, by this time, also been flagged down.

Wally shortly returned and coolly and competently assessed the situation. Plans to reach the Savannah camp site were abandoned in favor of spending the night in Riceboro, Georgia, some four or five miles north of the accident site. It was after ten-thirty when the damaged car and trailer were towed into Riceboro. Damage to our coach was limited to the tow bar, so we were able to sleep in it that night.

The following morning, December 1, the six functional cars and coaches headed for Columbia, South Carolina, the final study camp. Norm Carls and I remained in Riceboro to await repair crews from Savannah. In the course of the day the coach tow hitch was welded and the wrecked V-8 was towed to Savannah to be repaired. Norm and I again spent Saturday night in Riceboro, and were becoming fully steeped in the town's geography and history. Late Sunday morning we welcomed Kirkendall and Bob Simpson, who had driven down from Columbia, to retrieve us and our coach. Because of the cool temperature, we found it more comfortable to ride inside the coach for much of the journey to South Carolina.

Columbia and vicinity were studied as a Fall Line settlement, as a center of cotton textile manufacturing, for the history of water power utilization, and for its fertilizer, granite, and sand industries. Physiographic studies of the coastal plain and the piedmont were also carried out, but Dr. Van's pre-dawn micro-temperature survey had to be aborted because of a cloud cover.

Departing from Columbia on December 7, all the touring cars had their tops up and side curtains attached because of the frigid temperatures. An hour or so before noon the caravan entered North Carolina, and during the afternoon there were brief tours of the campuses of Duke University and the University of North Carolina. Shortly after four p.m. we reached an overnight campsite on the grounds of a country club near the city of Henderson, North Carolina. Snow flurries that evening were a chilling reminder that were back in the cold north. An uncomfortable drive on Saturday, December 8, brought us, via Mount Vernon, to Washington's tourist camp in East Potomac Park. Here most of the party accepted the trip director's offer to sleep in heated tourist cabins.

Notwithstanding an inch or more of snow, on Monday we toured the U.S. Geological Survey facilities. The closing banquet of the trip was held

that evening in the tourist camp lodge. Special guests included Dr. O. E. Baker, Dr. C. F. Marbut, and Dr. Carleton Barnes, of the Department of Agriculture, and Dr. Mendenhall and Dr. François Matthes of the Geological Survey.

Because the three month trip had obviated possibilities for dissertation field work during the fall semester, Norm Carls and I had opted to return to South Carolina for independent field studies. On December 11 we, therefore, bade good-bye to our colleagues, and remained in Washington an additional day, to interview local geographers and to procure publications and maps of our respective study areas.

Other group members reported a cold and bleak two day trip from Washington to Worcester, brightened by a dinner at the home of Johnny Fairchild's parents, in Glen Ridge, New Jersey. Overnight camp was in Upper Montclair, New Jersey, where heated rooms were secured at the Y.M.C.A. For the final day, December 12, the weather warmed slightly, along with the spirits of the group. Shortly before six p.m. the caravan, less several of the original participants pulled in to the Clark campus. The eventful trip was over, but many hours of work remained writing reports and papers on special studies that were initiated at the several field camps. Articles were also prepared for the January 1935 souvenir issue of *The Monadnock*, the newsletter of Clark University Geographic Society. During the thirteen weeks the expedition had travelled more than five thousand miles and had carried out field studies in seventeen states and the District of Columbia, and in some fourteen or fifteen different physiographic regions. Each of the cars had logged almost ten thousand miles.

It may be of interest to review the Three Months in the Field experience after the elapse of almost half a century. Several of the participants had hoped to compile and publish, in 1974, a forty year perspective. Unfortunately this did not materialize. Some information was assembled, however, on the present status of the eighteen students and five faculty members who shared experiences and contacts in the field during some ninety days. Six of the field campers, Norman Carls, Franklin C. Erickson, Carol Y. Mason, Ruben L. Parson, Walter W. Ristow, and Robert B. Simpson, were subsequently awarded Ph.D. degrees by Clark University. Hans J. Boesch earned a doctorate at the University of Zurich, Switzerland, and Lloyd D. Black received a Ph.D. from the University of Michigan. Johnson E. Fairchild and James A. Minogue had completed all Ph.D. requirements except the dissertation when the outbreak of World War II terminated their studies. L.

Lemar Stephan, Elizabeth Love, and Margaret Stevens Tuttle earned M.A. degrees at the University of Wisconsin, Clark, and Oberlin College, respectively. John F. Pyle, James S. Nelson, Milton J. Prescott, Walter E. Kirkendall, Margaret Stevens Tuttle, and Fred W. Allen subsequently pursued non-geographic careers.

Black, Carls, Fairchild, Minogue, Parson, and Simpson were in uniformed service during the War. Erickson and Ristow had civilian wartime responsibilities. Black, Boesch, Carls, Erickson, Fairchild, Love, Mason, Parson, and Simpson taught geography at various institutions in the post-War years. Several in this group became department chairpersons, and Erickson additionally served for ten years as Assistant Dean of the College of Liberal Arts, Boston University. Minogue and Ristow remained in government service after World War II, the former with the Department of the Army, and the latter with the Library of Congress.

Of the field trip participants who pursued geographic careers, Black is the only one still professionally active. Carls, Fairchild, Minogue, Ristow, and Simpson have retired. Individually and collectively the "1934 Three Months in the Field" alumni have authored an impressive number of monographs and articles, and have held responsible positions in various professional organizations. Six of our former colleagues are deceased: Hans Boesch, Elizabeth Love, Franklin C. Erickson, Carol Mason, Ruben Parson, John Pyle, and Lemar Stephan.

All five faculty members who contributed to the 1934 field excursion continued on the staff of the School of Geography until the disruptions of World War II. President Atwood retired in 1946, and Dr. Samuel Van Valkenburg succeeded to the directorship of the School of Geography. Atwood and Ekblaw both died in 1949. Dr. Van served as Director until his retirement in 1962. For the next decade or so, however, he continued to teach one course a year at Clark. At the celebration of the fiftieth anniversary of the School of Geography, in 1972, Dr. Van was awarded an honorary Doctor of Laws degree. He died four years later, on April 18, 1976.

During the war years Clarence F. Jones served as a consultant to several federal agencies, in addition to his work in the Graduate School of Geography. In 1948, he was named Distinguished Professor in Northwestern University's geography department. Several years later he succeeded to the chairmanship of the department, a post he held until his retirement. For the past two decades or so he has lived in retirement, with his wife Ida, in Oneida,

Illinois. Here he supervises work on several farms and has compiled a comprehensive genealogy of the Gehring family.

Dr. Wallace W. Atwood, Jr. served in the U.S. Army during World War II, with the successive ranks of Captain and Major. He was assigned to the Office of Strategic Services where, in quarters in Washington's historic Ford Theater, he supervised the construction of three-dimensional relief models. When the O.S.S. was deactivated after the War, the model shop was transferred to the Corps of Engineers, U.S. Army. Following his release from service, Wally held administrative and research positions in the Department of Defense and, after 1951, in the National Academy of Sciences-National Research Council. In 1951-52 he served as Chairman of the United States Organizing Committee which planned and staged, in Washington, D.C. in 1952 the Seventeenth International Geographical Congress. On leave of absence from the Library of Congress, I served as Secretary of the Organizing Committee for fifteen months, in 1951-52.

Following his retirement from the NAS-NRC, in 1960, Wally Atwood planned, constructed and managed a large marina and resort facility at Windmill Point, at the seaward tip of the historical Northern Neck, in tidewater Virginia. In 1974, Atwood sold the Windmill Point Marina. The purchaser failed to operate the facility successfully and, in 1978, went into bankruptcy. In 1979, Dr. and Mrs. Atwood, in collaboration with Karl Eugene Kohler, retrieved the property. Wally Atwood now holds the office of president of the Marine Resort Corporation, which operates Windmill Point Marine Resort.

As president of Clark University Geographical Society, in 1934-35, I was selected to speak for the student participants at the December 10 dinner, at the Washington, D.C. tourist camp. My diary reveals that I informed the gathering that "the trip is but a memory to us — but a happy one. The recollections and experiences that we shared will henceforth be an important part of us and will bind this group of students and faculty in a strong fellowship. There may," I noted, "be other long field trips, but there will never again be a first one." It proved, however, to be the last and only three month field trip sponsored by the Graduate School of Geography.

While preparing this paper, I posed several questions to Wallace W. Atwood, Jr.: Did the faculty of the School of Geography, I asked, consider the 1934 three-month expedition a success or a failure, financially and educationally? I asked this because no subsequent long trips were scheduled.

Here is Wally's enthusiastic reply: "It was an outstanding success! Without doubt it was one of our most successful field trip programs. The reason we never did it again? — It was a difficult job and it presented problems for students who remained behind. Also it was a little expensive for the students. Money was scarce in those days of the depression and we put off a second 3-month trip and then, of course, never did it."

According to my recollections, I also wrote to Wally Atwood, "eight of the eighteen students subsequently completed Ph.D.'s, six at Clark and two elsewhere. In addition, there were two ABD's. Six individuals, one-third of the participants, did not remain in geography. Was this a normal attrition rate for the period?"

"I do recall," Wally replied, "that we took along two probably four, who we never expected to make into geographers. We had a few 'open slots' and let in undergraduates to help with expenses. To answer your question in another way, I would say the attrition was above normal chiefly because we 'opened the doors' a little more than we would have done for a regular graduate academic year In short, it was financial considerations which produced the high attrition rate."⁴

For those of us who experienced *Three Months in the Field*, a particularly rewarding benefit has been in the lifelong professional friendships it engendered. These sentiments were echoed in a number of letters Rube Parson received, in 1974, when we were planning the since aborted perspective. It is, of course, difficult to assess, accurately and objectively, the tangible and intangible benefits we gained from having taken the trip. In other words, would our careers have been appreciably different if we had not had this experience?

One member of the party on whom the trip had a very significant impact was Hans Boesch, for some years the Director of the Geographic Institute at the University of Zurich. He wrote to Parson, in 1974, as follows:

It was really a chance coincidence of several things that brought me to the USA, labeled as an exchange student, in 1934 . . . I had finished my MA in geology a few months before and was, quite naturally looking down upon geographers.

The first thing that I did learn rather quickly, was that geographers in the States knew what they were talking about. The Field Trip was to my liking, because as young geologists we had been trained to rough it and to observe with our own eyes. It was there and in the months that followed in Worcester that I moved more and more into geography . . . I had

taken a liking to that field called geography and shortly before the outbreak of the Second World War decided to enter the academic career in that field at Zurich University . . . The War continued and Switzerland was encircled, my older colleagues retired or passed away and I had to take over much more than I ever dreamed of.

With nobody interfering, I could shape the geography training very much in accordance with what I had observed to be a good educational system at Clark. . .

Switzerland is a small country and that first journey across the water satisfied to a certain degree my desires to travel abroad . . . Based on this inclination and my first contact with the outside world, I became very much of what I would term an 'Internationalist.' I did not mind to spend twenty years for the International Geographical Union (as Secretary-Treasurer and Vice-President) and until today my publication show that geography has been able to give me the fulfillment of what I wanted to do in my lifetime.

The war could have seriously hindered this development. But my American friends never forgot me. As soon as the war was over, we established again contacts and visited. My fellow students of 1934-35 had already advanced into prominent positions, mostly in Washington, and I shall never forget when I went there for a lecture in the National Archives and so many of them turned out to see 'Hans' again that we had to move to a bigger lecture room.

Inevitably, many retired, some disappeared and a few have already left us forever . . . In short, Clark has not only pulled my switches for a life career in geography and in doing this given me more than a professional satisfaction, Clark has also given me a lasting human association with outstanding colleagues. I am very content, that things went the way they did. I could even hesitate to make any changes, if I should do it all over again.

With this evaluation, I am sure, all of our colleagues would agree. None of us could express these sentiments with more eloquence and feeling. Hans, regrettably, died of a heart attack, August 16, 1978.

NOTES

- 1 Koelsch, William A., Wallace Walter Atwood, 1872-1949. *Geographers*, Vol. 3, p. 13-14.
- 2 *Three Months in the Field with the Clark University Graduate School of Geography*. Clark University, Worcester, Mass., 1933, p. 5
- 3 Atwood, Wallace W., Jr., personal letter dated June 26, 1981.
- 4 Boesch, Hans, letter dated May 5, 1974, from Hans Boesch to Ruben L. Parson, of Battle Lake Minnesota.

The Formation of an Independent Department of Geography at Northwestern University: A Chapter in the Growth of American Geography Following World War II

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Introduction

The effect of two world wars has been devastating. Across the globe, social, commercial, political, and even ecclesiastical practices were disrupted or severed. In some cases, a completely new order emerged to replace or supplant an older one. Day-to-day life was disquieting, chaotic, and frequently miserable. Yet, while the wars brought profound changes, normal conditions resumed in a remarkably short period of time once the hostilities ended. Convinced that "might makes right," man may ultimately annihilate himself, but he managed to survive the two world wars. American geography, in fact, survived better than most realize.

In this paper I endeavor to show how the field of geography responded to World War II in terms of disciplinary growth. By detailing the development of an autonomous Department of Geography at Northwestern University, I hope to demonstrate how geographers reacted to post-war conditions and how the discipline may have profited from the war experience. Due to an intensified public awareness of geography and geographers following World War II, geography courses and departments grew at unprecedented and unpredictable rates. By focusing on the circumstances at Northwestern, I intend to portray what may have been the typical scenario across America at the time. Acknowledging that unique circumstances can be noted for individual college campuses following the war, I contend that, in general, Northwestern's experience was the norm rather than the exception¹.

Wartime and Post-war Geography

At the close of the war, many academic depart-

ments in the United States experienced a tremendous period of growth. Thousands of service veterans opted to resume their education while college and university campuses prepared for a huge increase of "experienced" students. A substantial number of college-bound students were returning from foreign lands and government service. They were no longer "straight off the farms and out of the backwoods" but were now older, better informed, feverishly curious, and eager to learn more about the exotic places they had just visited, the captivating new peoples they had seen, and the new world which was being promised and redrawn. The colleges and universities across the nation were asked to quench their thirst for knowledge and to attend to their broadened horizons. Johnston notes that:²

... there was a need for educated personnel, and the universities received unprecedented demands for their graduates to serve the new needs of society. Education expanded rapidly. The existing universities and colleges grew and many more were founded. Science and social-science departments expanded to meet the need for more students.

American geographers were no less influenced by the war than most other academic and professional people. A large percentage of those within or just entering the profession were called into active service to act as advisors or to train for combat positions. World War II witnessed a large number of trained geographers either being shipped off to Washington or stationed at home to train and serve in other capacities:³

During the late 1930s, some 40 geographers were in Washington, D.C.; by 1943 there were some

300 geographers employed there. The demand for geographers was, moreover, heightened across the country when an opportunity to introduce geography into college and university offerings through an enlarged Army Specialized Training Program presented itself.

Geography was one field of learning that literally gained recognition and a degree of status during the war years. The war created an immediate need to know something of foreign places, and geographers were called upon to fill that need. In the end, the discipline achieved broad public acknowledgement, even if some were to claim that its practitioners were poorly prepared.⁴

More than most disciplines, geography became a subject of great interest and intrigue following the war. Wartime experience and the news media had created a fascination for foreign names and unknown peoples. An expanding news and information service heightened an awareness that the earth would be hereafter considered in global terms and that educated people could no longer think of themselves as separate from peoples in other countries and on other continents. The world was seemingly shrinking and a greater interest in other countries and distinctive cultures prevailed. In the words of one commentator, Guadalcanal became "as familiar a name in American history as Bunker Hill or Yorktown."⁵ Moreover, new political boundaries were being drawn and large numbers of people were forced to realize the geographic consequences of nationalism and differing ideologies; boundaries changed and peoples' lives changed. It was a period of transition for geography, where the needed spark was finally at hand that would ignite a discipline into everyday consciousness: departments of geography burgeoned at unprecedented rates to incorporate public interest. Reflecting on this post-war period, Stone recalls that:⁶

Geography's inheritance from its overall World War II experience was great. The discipline 'came of age.' Its practitioners were tested at strategic and tactical levels in both domestic and foreign situations and were found capable of meeting a frightening variety of requirements . . . on the academic side the demand for geography right after the war sometimes could hardly be met. Administrators saw the field's significance in the training programs, returning veterans wished to know more about where they had been, and the overall effect of a global war . . . led to the formation of areal institutes and the rapid expansion of departmental offerings.

In contrast to the war years, when academic life seemed to stand still and many of the best minds

were called to serve in their respective capacities,⁷ the period following the war was characterized by growth, optimism, and excitement. It was a time of re-evaluation and self-criticism.⁸ The final chapter on this period and its influence on education has yet to be written. While the immediate results of the war on the education process were distasteful, the eventual effects were beneficial — at least for geography.⁹

Several years were of course needed to "pick up the pieces," but after those few years had passed, geography and geographers in America came to occupy a special position in university and college programs. Students could not be trained fast enough whereas the elder practitioners suddenly found themselves with a large congregation of anxious neophytes eager to assume the role of practicing geographers. It was a period of expansion and pragmatic accommodation:¹⁰

Those of us who went flocking back to the campus found ourselves part of a great mob that was inundating the halls of ivy. Those who had completed their work before the war returned to teaching posts. The younger ones picked up programs that had been abruptly halted, or cultivated new interests that had been stimulated by their wartime experiences. Those were the days of the original G.I. Bill, and the campus was awash with students. . . . Those might well have been the golden days of higher education in the United States, but at the time we were too frenzied, too overcrowded, too harried to have time to think about it.

Geographers appeared to sense the growing excitement for a new world order at once and were quick to adapt their memories of the places they saw and the new data they were trained to manipulate to fit the changing needs at home. Geographers seemed to bring a special sort of enthusiasm back to the college halls because their experience in the war was first-hand and direct: As regional advisors they were intimately involved with the war machine. Hart continues:¹¹

Geography faculty brought the lessons of their wartime experience back to their classrooms and curricula. They stressed regional geography, because they had learned that organized knowledge about places was important. Students liked regional courses, because such courses were relevant both to their own wartime experiences and to the task of reconstructing a war-torn world.

Geography was in its heyday. No longer an obscure unknown field of learning, geography was now in the academic limelight. Geographers were not only recognized, but they had "achieved a larger measure

of popular acclaim and official recognition than . . . been able to achieve at any time in the development of the science in . . . the United States."¹² There was, moreover, an enhanced cognizance that geographers had a significant contribution to make to peacetime efforts as well,¹³ and that any effort, whether in peace or in war, would surpass whatever had been achieved by geographers during the first world war.¹⁴

G. Donald Hudson: Northwestern's "Father" of Geography

Almost at once, G. Donald Hudson sensed the role academic geographers would come to play in post-war American education. Hudson anticipated geography's peacetime expansion and was essentially responsible for the establishment of an autonomous Department of Geography at Northwestern University in 1945. Beginning with the school year 1919-20 and continuing until 1945, geography and geology shared personnel, quarters, and title in the then Department of Geology and Geography at Northwestern.¹⁵ But it was Hudson alone who appears to have initiated, pushed for, and eventually achieved the separation of the two earth sciences on the Evanston campus. As head of Geography at Northwestern, Hudson has been characterized as someone who was "a combination Friend, Father, Intellectual, and God!"¹⁶ and it is clear from extant archival records that Hudson indeed served in all four capacities while at Northwestern. The remainder of this paper is therefore given over to a brief look at Hudson's pre-Northwestern career and a perusal of archival documentation in an attempt to illuminate his influence in creating an independent Department of Geography at Northwestern immediately following the close of World War II. Northwestern is cited here as a microcosm of a situation occurring throughout America, on every major university and college campus in the post-1945 period.

George Donald Hudson was born in Osaka, Japan, in 1897. Educated in the American Midwest, Hudson earned his baccalaureate, masters, and doctorate degrees from the University of Chicago in 1925, 1926, and 1933, respectively. He served for three years (1926-29) as the "Director" of the Middle School, American University in Beirut, Syria, spent a short while as a "Dean" of Blackburn College in Carlinville, Illinois, and then moved north to Whitewater, Wisconsin, where he was hired, in 1933, as "Professor of Geography" in the then State Teachers College. The following year Hudson left Whitewa-

ter to assume the position of "Principal Geographer" for the Tennessee Valley Authority (TVA) where he remained until 1939; Hudson's title had now changed to "Chief of the Land Planning Division."¹⁷

During the school year 1939/40, Hudson was hired by Northwestern as "Professor of Geology and Geography" but was, in reality, the only geographer in the eight-member department. In addition to Hudson, the "geography" side of the binomial department included William Edwards Powers who taught "Weather and Climate," and "Physiography of the United States," and Harold Bernard Ward, who taught "Economic Geography of Europe," "The Geographic Transformation of Europe," and "Asia — The Continent of Economic and Environmental Extremes." Powers was also in charge of "Glacial Geology" and "Topographic Mapping," two courses designed to fit either a geology or a geography specialization. The remainder of the offerings in the department were on the "geology" side which accounted for nearly two-thirds of the available courses.¹⁸

The Department of Geology and Geography offered three "fields of concentration" — geology, geography, and the teaching of earth science — and Hudson's duties were directed toward the middle specialty, never summoned upon to give courses on the geology side of the department.¹⁹ His first courses at Northwestern bore the following titles: "Nature's Role in Human Affairs;" "Geographic Assets and Liabilities of World Regions;" "Geographic Interpretation of Modern Life in North America;" "Natural Background to South American Economy;" and "Seminar in Land Problems in the United States." The latter-named course was apparently created at Hudson's request and was based on his experience at the TVA.²⁰ From the course description we gain an insight into Hudson's "specialty" as a geographer:²¹

The purpose of this course is to develop an understanding of (a) current problems of land utilization in the United States, (b) objectives of land and regional planning programs designed to meet these problems, (c) methods of research and effectuation employed in these programs, and (d) the role of applied geography in land use planning.

Over the next four years little change was evident on the surface of the joint department. Several courses were dropped, while several others were added or substituted. The overall balance of the department remained constant however. In 1944 Hudson was inactive with respect to teaching duties:

His commitment as "Acting Co-ordinator of the Navy V-12 Program" consumed the larger part of his time that year. In consequence, numerous geography courses were omitted for the school year 1944/45, leaving Powers and Ward to carry the bulk of the teaching load.²² But Hudson's work with the Navy V-12 Program was not the only matter on his mind. A glimpse at the archival record at Northwestern indicates that during this time and for some time prior to 1944, Hudson's sights were set on geography's post-war position. He was concerned to draw attention to the new role geography was playing during the war; he was further moved to inform the Northwestern administrators that geography would occupy a preeminent position in university curricula once the war was over. In the final analysis, he was convincing and successful in conveying both messages.

On April 9, 1942, in a curious letter written to John Stark (Chairman of the Department of Geology and Geography), Hudson vented his frustration over the issue of the obligation of scientists to the war effort. Responding to an article in the *Bulletin* of the A.A.A.S. asking whether professional scientists were doing their duty in helping the nation through the emergency, Hudson stated his views of military preparedness and the role the academic community should play in determining specific requirements for "pre-training course." Angered by the fact that male students were not required to take courses which would help ready them for war conditions, Hudson made his opinions plain by singling out map interpretation and meteorology as prerequisites to national defense.²³

There is no question in my mind, and I am sure there is none in the minds of many faculty men, that every male student that we will enroll during the next two years who is physically fit will see some sort of military service. There has been repeated mention in the press and from authorized sources on the radio that of all the fields in which the armed forces of this country need preliminary training map interpretation takes first rank. Meteorology is only second in importance. Is this not reason enough to make the taking of these courses a requirement? We owe it to the men, though they may not realize it. We owe it to the national effort, men in charge of it have expressed themselves. I take this position regardless of the fact that there are some who, with regard to their selfish academic interests, will undoubtedly accuse me of attempting to promote the fields in which I happen to be interested.

In effect, Hudson was monitoring a growing public

awareness of geography's heightened role during the war years. Fortunately for the discipline, there were forward-looking geographers like Hudson helping to familiarize students with the applied war-related nature of geography. These "pre-training courses" were, for many, their initial exposure to college-level geography and their first introduction to an awareness of a field of learning that would remain with them throughout the duration of the war.²⁴

Interest in geography had been increasing for some time at Northwestern. In 1940 an anonymous donor gave John Stark fifty dollars to establish "The William H. Haas Lectures," in honor of W.H. Haas, long-time professor in the Geology and Geography Department. According to Stark:²⁵

The terms of the gift are flexible but the donor has stated that it may be repeated in subsequent years, and that he hopes that it may be increased by similar gifts by other friends of Professor Haas. The purpose is to supply the University with the stimulus resulting from one or two popular and technical lectures in the field of Geography, emphasizing especially its human aspects.

Concomitant with the Haas Lectures was a growing awareness of the rising popularity of geography courses within the Department of Geology and Geography at Northwestern. In an undated and unsigned memo to the President of the University — but a memo written prior to 1942 — the anticipated future needs of the joint department were itemized: The hiring of one senior and one junior geologist at their respective pay scales; "general assistance" in the form of "assistants," and "help" for the Geology-Geography Library; and, better housing arrangements. This was the first indication that geography was being considered distinct from geology. The memo continued:

The raising of the level of geographic work to a high graduate level is not now contemplated. In order, however, to implement a movement in that similar direction without undertaking it as yet on an auspicious scale: One junior geographer at \$3,500 (asst. to assoc. professorial rank),

followed by this single telling sentence

Geography must in the long run look toward independent organization.²⁶

To acquire departmental independence, however, would necessitate initiative and drive on the part of one of the members of the then combined department; an autonomous Department of Geography would never result without that needed push and commitment.

Hudson was indeed the man with the drive and the initiative. In an impassioned letter to the Dean of the College of Liberal Arts in December 1943, Hudson finally made his feelings explicit, pointing to both the situation at Northwestern and the mounting wave of interest in geography across the continent. In this candid letter, quoted at some length here, Hudson articulated his plans for an independent Department of Geography and outlined the steps which must be taken to institute such a move.²⁷

Geography has always occupied a subordinate position among the other fields of learning at Northwestern — far out of line with its relative importance. On the national scene, geography at Northwestern has always played in the bush league — far out of line with Northwestern's position among the nation's great universities. Now is the time to decide whether or not this situation is to continue. World War II has increased public interest in geography, has brought about new developments in geography, has brought about new developments in other subjects that have had an impact on geography, and has drawn the contributions of geography for the first time to the attention of men in many types of work. New trends in educational thought, both related and unrelated to World War II, are appearing . . . I believe that the situation at Northwestern with respect to geography can not be allowed to continue. The University can not afford to disregard its responsibilities and opportunities in this field, and can not afford to continue in a position of apology with respect to it. Therefore, I propose the early establishment of a Department of Geography that is staffed, equipped, and housed in a fashion appropriate to the work it should do and the position it should occupy here and among the other university departments of geography. The Department of Geography should be prepared to offer instruction on the undergraduate level serving the College of Liberal Arts, School of Journalism, School of Commerce, School of Education, and Technological Institute. It should offer pre-professional training in geography and should carry professional training to the Ph.D. level. Its primary relationship should be with the College of Liberal Arts. The immediate minimum staff requirements of the Department are eight men. Geography now has the equivalent of two men. Appropriate equipment includes the creation of a map library with an initial minimum outlay of \$10,000 for maps alone. The immediate problem of housing is one of space and physical facilities. The physical location of the Department is of itself unimportant.

Hudson closed his epistle by calling the dean's attention to a recent article by Bowman²⁸ directed

toward the present status of geography in America, and he enclosed a copy of the short article with his letter.

The December 30 letter apparently found the dean in a receptive mood because Hudson, in a follow-up letter one week later, went on to clarify matters in what reads as an obvious response to the dean's queries concerning the true needs and immediate relevance in establishing a new department. Hudson made his position very clear:²⁹

The Department of Geography I have proposed can be established only after the war is over. First, there is no space now available for it on campus. Second, the top notch men I have in mind are in the military service, are serving in emergency war-time organizations, or are concerned with Army and Navy training programs in other institutions. Although these circumstances prevent putting decisions immediately into effect, they must not be allowed to delay the decisions themselves. We should be ready to act if the war were over tomorrow. The problem of space alone demands this policy. In addition is the equally pressing problem of staff. Key men are already moving into permanent university posts or are making commitments to that end.

Later, in the same letter (in a bold and somewhat optimistic view of geography's potential at Northwestern) he proposed a plan to establish not only an autonomous department but one preeminent amongst geography departments across the continent. In this fashion Hudson remarked:³⁰

There is not now in this country, nor was there in the year immediately preceding the war, a real center of geographic teaching and research. The department I have proposed would constitute such a center. Such a department is appropriate to my conception of Northwestern and to Northwestern's geographic position, and relationship to the Chicago area.

As grandiose as Hudson's aspirations seem to have been,³¹ the dean was ostensibly impressed. Later that year inquiries were sent throughout the Midwest in search of possible additions to the prospective department. Information was solicited regarding the possible employment of, amongst others, such noteworthy geographers as Ralph H. Brown, Richard Hartshorne, and Glenn T. Trewartha.³² However, circumstances unique to all three men prevented Northwestern from adding the services of any of these three to the anticipated Geography Department.

A Department is Born

While a separate Department of Geography — one freed entirely from any administrative ties with geology — did not become a reality until the 1945/46 school year, archival documents reveal that the decision was agreed to in principle a year prior to the actual breakup. Apparently, there were numerous conversations between Hudson and Dean Hibbard about matters germane to geography during the Fall term, 1944. In response to those conversations, Hudson wrote to Hibbard asking that the dean's understanding of these exchanges be committed to writing. With respect to the situation in geography, Hudson related his version of these conversations to elicit a response from Hibbard.³³

It is the desire of the College to see established at the earliest feasible date a Department of Geography comparable to departments of geography that occupied leading positions in that field prior to the war. It is recognized that the desired goal cannot be achieved immediately partly because few men of the quality we seek are currently available due to their service in military and other emergency organizations and partly because there are urgent needs in other parts of the College. It is recognized, however, that the mere establishment of a Department of Geography and the increased demands made upon geography by the Bachelor of Arts Program will necessitate giving that subject special attention with respect to staff and equipment. A concrete and detailed plan for a Department of Geography which reaches into the year 1948-49 is now being drawn by Mr. Powers and myself.

The dean's reply was in the affirmative but he cautioned that although he agreed with Hudson's interpretation of their conversations "this commitment toward an ultimate department segregated from geology has not yet been approved as a policy by the University Administration."³⁴ This seemed to satisfy Hudson for a short while because there appears to have been no further discussion of the issue for almost two months. One senses that Hudson was a keen observer of the campus mood and administrative temperament and that he was relying on his own judgement of the dean's ability to negotiate matters to fruition. But after six weeks had passed and no decision had been reached, Hudson again initiated discourse on geography's future at Northwestern. On January 2, in a joint letter signed by Hudson and Powers (but penned by Hudson), the two men refreshed the dean's memory.³⁵

Last year we submitted a plan for a department of geography toward which we believe we should

move. Because so many qualified men were obligated to wartime duties, we were able to appoint only one of the two for whom budget allowances were made. The establishing of a department was postponed. We believe that further postponement is neither necessary nor wise. The program for a department as submitted here translates part of the original plan into a plan of action covering the next four years.

The two co-authors of this note stipulated that the future department be staffed by Hudson, Powers, Ward, Edward Espenshade, and four additional positions to be filled later — "one professor, one associate professor, one assistant professor, and one instructor."

The dean was now frustrated and eager for a quick resolve of the matter. Hudson had convinced him that an administrative division of the Department of Geology and Geography was in order. Enthusiastic to see the affair reach some conclusion, Dean Hibbard wrote that same day to Dean Fagg:³⁶

Mr Hudson is anxious to settle the question as to the possible separation of geography from the Department of Geology and Geography. This is a question which has been much discussed for a good many years and has several points in its favor. I write to recommend the separation. I believe further that, with the growing importance of geography in post-war education, we should have another man in the field this next year. If an addition can be approved at this time, it will mean that the department will consist of Mr. Hudson, Mr. Powers, Mr. Espenshade, Mr. Ward, and an additional man. I should like to recommend that this additional man be provided and that the rank at this time should not be determined, we would be left free to choose a man in any of the three upper ranks.

Fagg too, was enthusiastic about the proposed division and brought the matter to the attention of the university president. Two weeks later, acting on the recommendations of the two deans, the president raised the issue of geography's autonomy at the January 17, 1945 meeting of the Board of Trustees where his motion — "that the Department of Geology and Geography in the College of Liberal Arts be reconstituted as two departments, to be known as the Department of Geology and the Department of Geography; and that the personnel of the Department of Geology and Geography now concerned chiefly with geography be transferred to the new Department of Geography" — was approved by the Executive Committee that same day.³⁷ After several years of discussion, a Department of Geography, completely separate and no longer affiliated with the Department of Geology, was at last

son's energy and perseverance had finally triumphed. Geography at Northwestern had taken the step many other departments of geography had already taken or would soon take on other campuses across America. The war, with its associated concern for far-away places and technical training and intelligence gathering, had brought geography to the forefront of public attention. Northwestern, like many other similar institutions responded by augmenting their commitment to a geographic education. Some departments would choose in fact to remain allied with geology, but the trend was toward detached associations and independent administrative status.

Hudson was placed in charge of the new Department of Geography and Arthur Howland was appointed chairman of the new Department of Geology. The initial separation appears to have been profitable for both disciplines. Prior to the division there were four graduate students in the combined Department of Geology and Geography. The first year they were administered independently, however, geology alone had three graduate students, whereas geography, as further testimony to its expanding post-war popularity, could already boast of six graduate students.³⁸ Howland and Hudson obviously worked well together and their respective departments and personalities fostered cordial relations between them.³⁹ Relations between the two disciplines may have cooled somewhat over the years,⁴⁰ but the 1945 partition appears to have been propitious for both departments. Today, the Department of Geography at Northwestern University is still independent and still flourishing.⁴¹

Final Comments

This short paper has attempted to shed light on the post-war public acceptance and disciplinary growth of geography as a popular and viable field of learning. To that end, I have focused on the situation at Northwestern and the influence of G. Donald Hudson in achieving respectability for geography. Northwestern, however, was used only as an example, in the hope that others concerned with the history of American geography will investigate and publish findings which tell the story at different colleges and universities. Since there is little at present with which to compare the above results, I am tentatively suggesting that the Northwestern example is typical of what transpired at other institutions during the same period. Differing personnel and personalities, distinctive and unique for their respective campuses and situations, of

course caused other faculties to realize different alternatives — e.g. the addition of geography courses where none or few previously existed; an expansion of an already-established department of geography; or the adoption of new interdisciplinary programs utilizing the newly-demonstrated skills of geographers following World War II. Yet, I would maintain that, as a general rule, a greater interest in geography was prevalent on the majority of American campuses of higher education and that respective post-war curricula reflect this popularity. As Stone aptly pointed out,

World War II was the best thing that has happened to geography since the birth of Strabo.⁴²

This narrative is one of very few to document how geography's World War II expansion and evolution achieved reality. It is to be hoped that other interested geographers will supply additional studies relating to the overall disciplinary growth of post-1945 geography in the United State. The specific mechanisms responsible for geography's post-war development are part of an unwritten chapter in the history of American geography.

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 - 22 **University Register**, Northwestern University, 1944-45, pp. 128 and 130.
 - 23 Hudson to Stark, April 9, 1942, Franklin Bliss Snyder Papers (hereafter, F.B.S.P.).
 - 24 One can only speculate on the degree of influence these "pre-training courses" had on the minds of young men who had heretofore never experienced the likes of geography at the university level. This, in many cases, was their first contact with the discipline since grade school and one can only wonder what their subsequent view of geography was in later years, if it was based on these preparatory courses.
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The Tenth International Conference on the History of Cartography

By David Icenogle
Auburn University

The Tenth International Conference on the History of Cartography met at Trinity College, Dublin, Ireland, between Monday, August 29, and Friday, September 2, 1983. The conference was well attended with a total of 139 delegates representing 16 countries. There were 40 registered delegates from Great Britain, 30 from the United States, and 17 from Ireland, thus giving the conference a strong Anglophonic bias. Although English and French were the official conference languages, only seven of the total of 48 papers were delivered in French. The large number of acceptable papers submitted to the Organizing Committee unfortunately necessitated the use of two concurrent sessions.

The paper sessions were topically organized as follows: "Cartographic Innovation, an Historical Perspective;" "The Cartographer's Sources and Methods;" "Early Modern Cartography;" "Colonial Cartography;" "Agrarian Cartography;" "Far Eastern Sources and Methods;" "The History of Map Collecting;" and "The Methods and Work of Individual Cartographers." On Wednesday afternoon there was a tour of the cartographic facilities of the Ordnance Survey for Ireland, located in Phoenix Park.

Twenty-two of the papers were presented by Americans and Canadians, including seven by North American geographers. These papers were presented by Arthur H. Robinson (University of Wisconsin), "The First Flow Maps in Ireland, Belgium and France;" Michael Conzen (University of Chicago), "Purveying the Agrarian Dream: Commercial Development and Social Transformation of the County Landowner's Map in America, 1871-1939;" Thomas

R. Smith (Kansas), "Rhumb Lines on Early Portolan Charts;" Norman J.W. Thrower (UCLA), "A Buccaneer's Atlas: *The South Sea Waggoner of Basil Ringrose*, 1682;" Shannon McCune (Florida), "A Commodore Perry Map of Korea of 1854;" Richard Ruggles (Queen's), "Colonial Cartography by a Fur Trading Company; Joseph Despard Pemberton of the Hudson's Bay Company in the Colony of Vancouver's Island, 1851-1859;" and David Icenogle (Auburn), "American Cartographic Activities in Northeastern Africa, 1870-1878." Copies of the papers should be available from the authors; publication of the conference proceedings is uncertain at present.

So much for the statistics. The feasting, imbibing, socializing, field-tripping, and touring which inevitably accompanies an International Conference on the History of Cartography merits separate description.

On Monday evening there was a reception held at the Mansion House, the official residence of the Lord Mayor of Dublin (not attended by either the Lord Mayor or this reporter); and on Tuesday night an official state reception, hosted by the Minister of Education, Mrs. Gemma Jussey, took place in the lovely Georgian state reception rooms of Dublin Castle, whose rafters rang, not for the first time, with merriment.

The official conference banquet was held on Wednesday evening in the 1761 Great Dining Hall of Trinity College. As predicted, the capable organizers presented an Irish menu of mutton and potatoes with all the trimmings, including four varieties of wine and liqueurs. A superb example of traditional Irish oratory was delivered to the somewhat rowdy assem-

bly by Professor Gordon L. Herries Davies of the Trinity College Department of Geography.

Thursday afternoon was the official closing of the paper sessions, and on that evening a reception and buffet supper, followed by an entertainment of Irish traditional songs was held at Castleton House, an eighteenth century Georgian country house. On Friday most of the conference attendees (comprising two bus-loads) went on an enjoyable and productive field trip into counties Carlow, Wicklow, and Kildar, led by John Andrews and Arnold Horner, of the Trinity College and University College Geography Department, respectively.

The conference was a great success, attributable in part to the organizing skills and continual good humor of the Trinity College staff, and in part to the friendly social environment provided by the Irish people, possibly the most hospitable population in the world. The Eleventh International Conference on the History of Cartography will be held in Ottawa, Canada, during the summer of 1985, a location more accessible than Dublin to American geographers. Attendance at this meeting is highly recommended to all of those who are interested in the history of geography and its first cousin, the history of cartography.

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